A STUDY OF VOCABULARY INSTRUCTION WITH FOURTH GRADE STUDENTS PARTICIPATING IN AN INDIVIDUALIZED READING PROGRAM

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The purpose of this study was to determine the effects of one approach to vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized reading program. The vocabulary instructional approach used student-selected vocabulary words as well as instruction in vocabulary strategies such as context clues, structural analysis, and definition strategies.

The twelve week study exposed one fourth grade classroom to vocabulary instruction in a Reading Workshop setting. Major components of the program were mini-lessons, which often involved vocabulary strategies, the silent reading of self-selected books, one-on-one researcher/student interactions, and the self-selection of vocabulary words. The research design is descriptive in nature and used both qualitative and quantitative research methods. Qualitative data included student interviews, teacher interviews, student writing samples, and field note observations. Quantitative data included vocabulary test scores from two groups of students, Group A and Group B. Group A participated in the self-selected vocabulary approach and received vocabulary instruction from the researcher acting as participant observer. Group B received some vocabulary instruction from their classroom teacher, but did not participate in the same

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CHAPTER 1

THE PROBLEM

Background of the Problem

Vocabulary learning is an inherently important part of language acquisition. The relationship between vocabulary knowledge and reading comprehension is well established in the reading literature (Davis, 1968). According to Anderson and Freebody (1981), the amount of words in a person's vocabulary best predicts how well he or she comprehends text. In addition, studies have shown that students with extensive vocabularies perform better on reading comprehension tests than students with smaller vocabularies (Dole, Sloan, & Trathen, 1995). The challenge to teachers is how to better serve the vocabulary learning needs of the students. By helping students acquire and effectively use vocabulary, teachers can help students develop prior knowledge, and as a result, increase their reading comprehension.

Research examining student vocabulary knowledge generally estimates that children learn approximately 3,000 new word meanings per year (McKeown & Curtis, 1987; Nagy & Herman, 1987; White, Graves, & Slater, 1990). The vast majority of words do not become part of a student's reading vocabulary through direct instruction (Kuhn & Stahl, 1998; McKeown & Curtis, 1987). Instead, students can learn the words incidentally, by encountering them in text. Nagy and Herman (1987) suggest that this large number of words can be accounted for by using estimates of children's learning

from context and reading volume. Graves (1986) estimated the number of words acquired from context throughout the course of a school year is between 1,000 and 5,000 with the exact number dependent on both the amount of text encountered and the student's reading ability. He suggested that a 4,000 word difference between the upper and lower estimates of vocabulary learning accrues over the course of a single academic year, with the gap widening as children progress through school.

Because children who read well encounter greater amounts of text than do poor readers, better readers are exposed to more words and are able to access a greater number of meanings from context than their classmates who experience reading difficulties (Stanovich, 1986). They learn more word meanings incidentally, making further reading easier. Struggling readers, however, experience difficulties in that they begin with a smaller reading vocabulary, are exposed to less text, and encounter fewer words. In addition, it is likely they will be less able to make efficient use of context to derive the meanings of new words, further minimizing their ability to expand their reading vocabulary incidentally (Stanovich, 1986). Stanovich (1986) has labeled this ever-widening gap between good and poor readers the "Matthew Effect," alluding to the passage from the Book of Matthew in the Bible that states the rich get richer and the poor get poorer.

Results from vocabulary studies vary, but generally conclude that "some kind of instruction is better than no instruction in vocabulary" (Baumann & Kameenui, 1991, p. 613). The relationship between vocabulary and comprehension has been studied extensively in order to determine the best way to teach vocabulary. Results on the best

means of instruction vary. Debates exist arguing whether we should teach students individual word meanings directly or present instruction in context, which would involve the presentation of the word within a sentence. Research supports both of these methods (Jenkins, Matlock, & Slocum, 1989). Stahl (1986) suggests that the real issue is that of striking a balance between direct instruction and learning from context. Baumann and Kameenui (1991) also recommend that instruction "include goals that provide for teacher-initiated vocabulary learning as well as ones that strive for student independence in vocabulary learning" (p. 626).

In addition to contextual strategies and direct instruction on specific word meanings, research suggests the importance of student practice with vocabulary words. Kuhn and Stahl (1998) reviewed 14 studies investigating approaches that aimed at teaching children to be more efficient at learning words from context. In nearly all of the studies reviewed, treatments were effective at improving children's skill in learning words from context compared to a no-treatment control. However, in the four studies that included a practice-only treatment, no significant differences were found between the strategy treatment and practice-only groups. These findings suggest that the effects of the treatments were due to the practice rather than to the specific strategies taught. In addition, Beck and McKeown (1991) identified several features of effective vocabulary instruction including extensive practice with words, breadth of knowledge--both definitional and contextual-- about the words, and active student engagement leading to deep processing of the words.

Although research exists supporting various vocabulary strategies, Beck, McKeown, and McGaslin (1983) assert that "traditional vocabulary instruction is based on the assumption that word meaning is best taught through the presentation of a word in context rather than through definition based instruction" (p. 177). In addition, "textbooks on teaching reading almost universally advise the development of vocabulary through the use of words in contexts" (p. 177). In other words, the context that surrounds a word in a text can give clues to the word's meaning. Basal readers, a major source for vocabulary development in the elementary school classroom, most often identify their vocabulary instruction as employing a context method.

"One problem with studies investigating the effects of learning vocabulary through context is that they have relied on either experimenter-contrived texts or natural, ecologically valid texts selected from basal reading programs or content textbooks" (Baumann & Kameenui, 1991, p. 610). In general, vocabulary studies suggest that children of varying ages and abilities are able to derive the meanings of unknown words from contexts. The major motivation for most vocabulary instruction has been to help students understand material they are about to read (Nagy, 1988). However, few research studies go beyond contrived texts or basal readers to examine vocabulary instruction and vocabulary acquisition within the silent reading of trade books, which are not written for instruction, and where vocabulary words to be learned are not pre-selected from the text.

Therefore, attention must be given to types of vocabulary instructional approaches used in reading programs. Elementary school teachers have often relied on basal reading programs for reading instruction. The basal reading approach is a packaged program that

translates directly into classroom instruction. Teachers are directed to teach skills and objectives to the class and short selections provided in the texts are usually read aloud by the students. Studies show that children in typical primary grade classrooms read independently only 7 to 8 minutes per day (Anderson, Hiebert, Scott, & Wilkinson, 1985). Not only do students need more reading time in order to enhance their reading ability, they need time for silent reading in order to enhance their vocabulary knowledge. Nagy, Herman and Anderson (1985) contend that regular, wide reading must be seen as a source of large-scale, long-term vocabulary growth. However, as mentioned above, students often lack enough experiences with extensive reading in the classroom.

The basal approach receives criticism from whole language theorists as insensitive to the needs of individual students (Lovitt, 1990), yet much research uses a basal program as the basis for vocabulary studies. The reason for this situation may be that basal programs have preselected words for the students to learn. The preselected words in the basal programs make the teaching of vocabulary much less complex than in other reading programs. For example, teachers using an individualized reading approach encounter the problem of selecting words for vocabulary instruction due to the varied reading material chosen by the students. Research on literature based, individualized reading programs have demonstrated their success, yet the research has not explored vocabulary instruction within these programs. A need for research on vocabulary acquisition in individualized reading programs exists.

In an effort to overcome the limited contexts of vocabulary instruction in many reading programs and the lack of reading time in reading programs, this study examined

vocabulary acquisition within an individualized reading program called Reading Workshop. Reading Workshop addresses the issues of individual differences among students and students' attitudes. Based on a holistic theory of instruction, Reading Workshop incorporates an instructional framework where teachers design lessons and create a literary environment that supports, motivates, and challenges readers (Atwell, 1987). Extended periods of time for silent reading from a wide selection of children's literature are provided and reading for pleasure, student choice of books, and individualized reading instruction are stressed. The individualized reading indicates students are reading books of their own choice. Classroom teachers can interact with students from diverse backgrounds and various instructional levels. In *Becoming Literate*, Marie Clay (1991) reports that by the fourth year of school, a teacher will be dealing with a five to six year range of reading abilities in the classroom. In *Becoming a Nation of Readers* (Anderson, Hiebert, Scott, & Wilkinson, 1985), reading is rationalized as a continuously developing skill. Both works suggest that children do not all develop at the same rate. However, in many instances, teachers work with reading practices where children making low progress read less and spend much of the year in the preparation stage (Clay, 1991). These children are drilled on skills and get further behind. On the other hand, average students reading at the appropriate grade level or outstanding students working above grade level are often limited from developing advanced reading skills. In a Reading Workshop program, these problems are somewhat alleviated because children are given a choice of books to read for reading time.

In the Reading Workshop program, reading is considered more of a task pursued for understanding and pleasure rather than a separate subject devoted to drilling on skills. Skills, including vocabulary, are taught in context, and the teacher has ample opportunities to observe reading behaviors closely. Atwell (1987) reported that her students improved in reading ability and demonstrated better attitudes toward reading as a result of Reading Workshop (Atwell, 1987). *Becoming a Nation of Readers* contains reports that suggest motivation is critical to the nature of reading: "Increasing the proportions of children who read widely and with evident satisfaction ought to be as much a goal in reading instruction as increasing the number who are competent readers" (Anderson, Hiebert, Scott, & Wilkinson, 1985, p. 15). In a study where a sample of poor black children reading a year above grade level were interviewed, it was noted that although most of these students like to read, few of them like the activities called "reading" in school (p. 15).

Of final concern in this study is the extent to which words are learned. "Determining when a word is known also depends to a great extent on how knowledge of that word is assessed" (Baumann and Kameenui, 1991, p. 607). Researchers such as Graves (1986) and Russell (1954) report that word knowledge is typically assessed through the use of multiple-choice format. In addition, researchers (Anderson & Freebody, 1981) criticize multiple-choice formats used in assessing vocabulary knowledge because of their insensitivity to the various dimensions of vocabulary knowledge. In order to overcome this limitation, a fill-in-the-blank format was designed for the study at hand. The format includes usage, an important aspect of vocabulary

knowledge not captured in many multiple choice tests, and it requires students to apply their knowledge of the word and integrate it with the sentence context, rather than just reciting a definition (W.E. Nagy, personal communication, July 29, 1999).

Another goal set by the researcher, relating to the extent that words are learned, was to determine if students use the words they learn. According to Baumann and Kameenui (1991), a word is learned if it can be used expressively. Baumann and Kameenui discuss the degrees of knowing a word. They acknowledge four different vocabularies that can be thought of as either expressive (i.e., speaking and writing) or receptive (i.e., reading and listening).

> Expressive vocabulary requires the speaker or the writer to produce a specific label for a particular meaning. In contrast, receptive vocabulary requires the reader or listener to associate a specific meaning with a given label as in reading or listening. In order for a word to be used in expressive vocabulary, the word must be adequately learned or acquired, retained in memory, and retrieved in common expression. If a student is unable to produce a specific vocabulary word in attempting to express a particular meaning during the acts of writing or speaking, we could say with confidence that the child simply does not know the word. According to research on what it means to know a

> word, a child can make meaning out of a text without actually "knowing" the word (p. 606).

A challenge for students is not only to know enough words to comprehend texts, but also to use vocabulary in expressive language. This study was designed to look at receptive vocabulary knowledge through observations made during students' reading time and to look at expressive vocabulary knowledge through observations made in student reading journals and in papers completed during writing instruction. The journals and writing helped determine whether or not students used the words they learned.

Purpose of the Study

This study was designed to measure and observe the effects of student centered vocabulary instruction on fourth grade students' receptive and expressive vocabulary. The study took place in one fourth grade classroom implementing a Reading Workshop approach to reading instruction over a twelve week period of time. Mini-lessons were utilized for direct instruction needed through the course of the study. Mini-lessons involved short lessons at the beginning of reading time where either the researcher or the classroom teacher taught skills that students needed for vocabulary learning such as how to use context clues or structural analysis. Independent reading time was used by the researcher for one-on-one interaction and observation. The effects of the teaching approach on vocabulary learning were analyzed qualitatively and quantitatively using a variety of interview and field note procedures as well as tests made from student self-selected words. The results of the vocabulary tests were analyzed for percentages of words correct. Student vocabulary learning was evaluated in terms of words learned and

used. The results of data gathered during observations helped identify information leading to student use of learned words in their expressive (writing and speaking) language.

Research Questions

The following questions guided the research study:

1.) What are the effects of one approach of vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized program?

a. Do students use vocabulary knowledge gained as they read their books?

b. Do students use vocabulary knowledge gained as they write in their reading journals or in their writing samples?

c. Do students attend to their words in the environment?

Significance of the Study

Different theories of learning are based on different assumptions about literacy learning and instruction. Reading Workshop is based on the theory supporting holistic assumptions about literacy learning and instruction. Holistic approaches assume that reading and writing are learned from whole to part; that learners should understand and experience the purposes and functions of language before they learn to manipulate its component parts; and that learning should be meaningful and should occur in context (Turner, 1995). Harste, Woodward, and Burke (1984) assert that holistic approaches also give the child an instructional edge, so the order in which features of written language are learned varies for individuals.

Reading Workshop is not a new practice in the field of reading. Many books and papers have been published describing this approach. Nancie Atwell's *In the Middle* (1987) and Don Holdaway's *Independence in Reading* (1980) base their ideas on similar concepts. Their ideas center on reading for pleasure, student choice in book selection, and individualized instruction. For the purpose of this study, an adapted form of Nancie Atwell's Reading Workshop will be described here. The basic organization of this Reading Workshop program included skill-oriented mini-lessons; lessons in which vocabulary is learned in context; approximately 30 minutes of reading time with books of the children's choice; one-on-one teacher/student conferences during reading time; and students' responses and teacher feedback in reading journals.

Although Reading Workshop is not a new practice, research on vocabulary instruction within a Reading Workshop approach is a new concept. Vocabulary research approaches incidental learning during natural reading acts, but research on vocabulary instruction within individualized reading programs such as Reading Workshop is limited. Individualized reading programs do not provide readily available vocabulary words for instruction. Therefore, the Reading Workshop program may not seem best suited for regulated vocabulary instruction. However, the organization of Reading Workshop provides an environment for students to learn words unlike any other employed in a vocabulary acquisition study. The environment established in a Reading Workshop program provides multiple opportunities for vocabulary acquisition: mini-lessons provide opportunities for direct instruction on vocabulary skills; teachers and students have opportunities to interact with words within the context of literature; teachers and

students have opportunities to interact with each other about their vocabulary learning; students receive opportunities to self-select vocabulary words; and students are constantly observed and assessed.

Vocabulary instruction in basal readers typically consists of instructional activities prior to, during, and after reading a selection. Prereading activities usually provide students experience with new words. This practice normally consists of the presentation of a word in a context, constructed to demonstrate the word's meaning, and a discussion of the meaning of the word. A glossary is often provided at the back of the students' text to aid in vocabulary development during reading so children can look up words if needed. After students read a selection, exercises may be used that provide more practice with the target words met during reading (Beck, McKeown, & McGaslin, 1983).

Although vocabulary development could occur at several points in a basal reading lesson, depending on the teacher, in actuality, many teachers give little or no classroom attention to vocabulary (Zimmerman, 1997). In addition, during silent reading situations where students are reading tradebooks, students will not have prereading activities to give them background on new words. They need strategies to help them when they encounter unknown words. Students benefit from reading time, strategies on using contextual clues, direct instruction and practice on defining word meanings (context clues and structural analysis), and repeated encounters with words. Reading Workshop provides opportunities to demonstrate these strategies.

Teachers and students participating in a Reading Workshop program receive repeated opportunities to interact with words within the context of real literature. As

mentioned earlier, students read books of their own choice. During the silent reading time, a teacher's responsibilities include reading with students and observing their behaviors. Teacher mini-lessons can be developed from teacher insight on problems students encounter as they read. If a teacher observes students struggling with prefixes or suffixes, the teacher can adapt mini-lessons designed to confront the problem. Mini-lessons were utilized in this study to teach students which words are important and how to recognize unfamiliar words so that they may select the words for further study. Knowledge about word families, base words, prefixes, and suffixes were taught during mini-lessons and other kinds of instructional activities. The researcher learned a great deal while listening to children read or by asking them comprehension questions. Many times when reading with children, a teacher may find students stumble upon a word they think they do not know, but once they are given the pronunciation, they recognize the word as familiar to them. This situation may happen frequently with students reading below grade level. On the other hand, other students use word knowledge correctly and gain meaning from the text, but when they are asked about a word they just read, they will not know what it means or how to use it.

Students in this study kept a personal collection of vocabulary words. These words came from their own reading. The words were kept on a ring with index cards full of words and definitions they have chosen. According to Beck, McKeown, and McGaslin (1983), a mechanism for helping children keep track of the words they are learning is a valuable tool in a vocabulary program. If new words are to become a permanent part of the children's vocabulary, they must not be confined to classroom practice--they should

be challenged to find the words they learn in contexts beyond the classroom and to use the words in their own conversation and writing (p. 181).

As students recorded words on the index cards, they also recorded definitions or word meanings. These definitions could be a student generated definition or a dictionary definition. Learning would not be meaningful if students simply were to memorize the word definitions in their vocabulary rings. Students understand vocabulary when they relate the word to their own background experiences (Thelen, 1986). Beck and McKeown (1991) assert that the goal for vocabulary development is to insure that students are able to apply their knowledge of words to appropriate situations. In addition, students should be able to enhance their knowledge through independent encounters with words. In other words, word meanings serve as tools for comprehension--not simply as facts to recite. The challenge for educators is to provide instruction of the sort that leads to flexible application of word knowledge and meaningful word knowledge. Self-selected vocabulary words initially get a child's attention at the time of selection due to the student's transaction with the text, making the word meaningful to that learner. Further application is provided with group interaction.

Beck and McKeown (1983) also report that in many cases, it is likely that a new word has not had enough exposure for its meaning to be retained in memory, even a short time after instruction. This lack of retention is particularly so if words are not reinforced naturally. In this study, words were examined by students, in groups, and with whole class instruction. In this setting, groups of children interacted to choose some of their individually selected words to use as vocabulary words for the entire class. As students

chose words they wanted the class to learn, they wrote the words in sentences. This action reinforced vocabulary usage and meaning. Because there were five groups and each group selected two words for the test, ten words total were gathered for the class to study and learn. These words, collected by the researcher on Monday, were typed along with their sentences and passed out to class members in the form of a handout. Throughout the week, the vocabulary words were discussed and manipulated to give students the exposure they needed to learn the word.

As mentioned above, students selected the words for their tests. Choice has been found to be a powerful factor in motivation studies (Turner, 1995; Gambrell, 1996). Students need to "know why" they are learning certain words and how and why those words are important to their literature selections (Dole, Sloan, & Trathen, 1995). Research has clearly indicated that students benefit from being told why they are learning something and how their learning can help them.

Definition of Terms

The following terms are used throughout the study. The definitions are presented to help the reader understand the intended meaning of the terms as they are used by the researcher.

Basal approach: An approach to reading instruction that uses basal reading texts and workbooks, teacher's manuals, and supplemental materials for developmental reading and sometimes writing instruction (Harris & Hodges, 1995). "Basals are structured texts with stories for each grade level and accompanying workbooks that focus on word recognition, comprehension, and skill reinforcement" (Wiener & Cohen, 1997, p. 29).

Instruction is usually uniform. Teachers direct lessons with a detailed manual, which suggests prereading activities, including vocabulary words and comprehension strategies. Story selections are read (usually orally), then discussion occurs, and exercises in the workbook follow. (Wiener & Cohen, 1997).

Contextual analysis: "Contextual analysis is a strategy readers or listeners use to infer or predict the meaning of a word by scrutinizing the semantic and syntactic cues present in the preceding and following words, phrases, and sentences" (Baumann & Kameenui, 1991).

Direct instruction: A structured and teacher directed approach where instruction occurs as the teacher explains a new concept or skill to a large group of students followed by practice under teacher guidance (Joyce, Weil, & Showers, 1992).

Expressive vocabulary: Expressive vocabulary is "the vocabulary used to communicate in speaking and writing" (Harris & Hodges, 1995, p. 80).

Individualized reading approach: "An approach to reading instruction, developed in the 1950s as an alternative to basal reading programs, that emphasizes student selection of reading materials (largely with trade books) and self-pacing in reading, with the teacher adjusting instruction to student needs in small-group work and in individual conferences" (Harris & Hodges, 1995, p. 115).

Morphemic analysis: "Morphemic analysis is a word identification strategy in which the meanings of words can be determined or inferred by examining their meaningful parts" (Baumann & Kameenui, 1991).

Participant observation: "Participant observation ranges across a continuum from mostly observation to mostly participation" (Glesne & Peshkin, 1992, p. 40). For the purposes of this study, the role of the researcher in participant observation is to teach and interact with students on a regular basis. The researcher is a participant, but will also observe the students during instruction and after instruction.

Reader response: Theories concerned with how readers make meaning from their experiences with the text. Reader response theories generally assume that the text cannot be understood or analyzed as an isolate entity (Beach, 1993).

Reading Workshop approach: An instructional approach in which teachers design lessons and create a literary environment that supports, motivates, and challenges readers (Atwell, 1998). Children are provided regular, extended periods of time for silent reading, opportunities to respond to the readings in a written format and oral discussions. Each workshop begins with a mini-lesson, followed by time for silent reading of self-selected trade books. Follow up activities may provide children opportunities to practice various aspects of reading (Atwell, 1998).

Receptive vocabulary: Receptive vocabulary is "the comprehension vocabulary actually used by a person in silent reading and listening" (Harris & Hodges, 1995, p. 215).

Sociocultural theory: Theory based on views that learning is social. "A sociocultural approach concerns the ways in which human action, including mental action (e.g., reasoning, remembering), is inherently linked to the cultural, institutional, and historical settings in which it occurs" (Wertsch, 1994, p. 203).

Structural analysis: Structural analysis involves student recognition of root words, prefixes, suffixes, and compound words as well as student use and understanding of their function (Rupley & Blair, 1988).

Trade books: "Commercial books, other than basal readers, that are used for reading instruction" (Harris & Hodges, 1995, p. 258).

Vocabulary acquisition: Vocabulary acquisition occurs when a word is learned, or retained in memory.

Vocabulary knowledge: Vocabulary knowledge as it is used in this study encompasses students' abilities to generate definitions, students' abilities to use words correctly in oral and written contexts, students' abilities to recognize and understand words in their reading vocabularies, and students' abilities to learn words independently using acquired vocabulary skills.

Whole language: The term whole language encompasses many holistic principles and philosophies. A whole language approach to teaching is basically a child-centered literature based approach to language teaching that integrates the teaching of reading, writing, speaking, and listening (Wiener & Cohen, 1997)

Assumptions

This study was based on several assumptions about the nature of vocabulary acquisition and about vocabulary instruction in an individualized reading classroom:

The classroom participating in the Reading Workshop approach had adequate access to books for all reading levels.

The teacher implementing the approach adequately taught the students how to select books for reading and words for vocabulary instruction.

The assessment procedures were valid in that they measured the intended effect.

Word learning occurred incidentally during reading activities.

Word knowledge involved a range of skills that can be taught using direct instruction.

Summary

Chapter 1 provided an introduction to the background of the problem. In addition, the chapter included the purpose and the significance of vocabulary instruction within a Reading Workshop classroom setting. Research questions were presented, terms were defined, and assumptions were stated.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

Introduction

Children learn approximately 3000 words per year. Only a few hundred of the 3000 words are learned in instruction specifically aimed at vocabulary acquisition (McKeown & Curtis, 1987). Where are all of the other words acquired? Vocabulary learning often occurs incidentally, as in reading, where the purpose of the activity is not to learn words, or intentionally, as in consulting a dictionary or in direct vocabulary instruction. Research exists supporting both incidental and intentional vocabulary acquisition (McKeown & Curtis, 1987).

Research on vocabulary learning concentrates on vocabulary taught in basal programs. Baumann and Kameenui (1990) credit the large percentage of basal readers used in classrooms for the focus on basals. However, literature based reading programs are becoming more widely used and accepted for their success and need to be addressed in research studies. Reading Workshop upholds many recent success stories even though the approach is not a new practice in the field of reading (Atwell, 1990). Similar approaches such as Individualized Reading have been described by Don Holdaway (1980) and Jeanette Veatch (1986). In her personal memoir on Individualized Reading, Veatch (1986) remembers the fifties when some researchers hoped to de-emphasize basal readers. “We wanted teachers to teach reading with trade books through an approach in

individual choice, or self-selection" (p. 586). Basals still prevail in many classrooms, but more and more educators promote various literature-based approaches to reading.

The review of literature provides relevant research about the components of Reading Workshop, an individualized reading approach, that help create an appropriate learning environment for the vocabulary instruction used in this study. The chapter also involves studies on vocabulary acquisition, including acquisition through incidental learning, contextual analysis, direct instruction, practice, and social interaction. The purpose of this chapter is to provide a review of the literature which is pertinent to the focus of this study. The review of literature is divided into three main sections. The theoretical background underlying the issues of vocabulary instruction within an individualized reading program as in this study is reviewed in the first section of this chapter. The second section contains a discussion of research conducted in Reading Workshop classrooms, or similar reading approaches. Finally, the third section reviews research conducted in the field of vocabulary instruction.

Theoretical Background

Several theories support an instructional approach to self-selected vocabulary within an individualized reading program. This section examines constructivism, motivational theory, and reader response theory as they relate to the issues of vocabulary acquisition in this study.

Constructivism

Contemporary conceptions of literacy emphasize that knowledge is socially constructed within meaningful contexts with more knowledgeable members of a

community or culture (e.g., Wertsch**,** 1994). Constructivism encompasses two realms of literacy: cognitive and social (Willis, Stephens, & Matthew, 1996). The sociocultural perspective underlying constructivism is grounded in a Vygotskian social-historical theory. Through interactions with others in the sociocultural environment, children learn to read, write, and engage in academic discourse (Goatley, Brock & Raphael, 1995). Vygotsky (1978) contends that "every function in the child's cultural development appears twice: first, on the social level, and later, on the individual level; first, between people (interpsychological), and then inside the child (intrapsychological)" (p. 57). In addition, Vygotsky's Zone of Proximal Development demonstrates how learning/teaching interactions work to increase a child's cognitive development. Vygotsky (1978) defined the zone as "the distance between the actual level of development as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers" (p. 86). Vygotsky's (1978) view of learning, which emphasizes the role of social interaction in the development of language, thinking, and learning, acknowledges the importance of providing children with support so they can be successful at challenging tasks. It also highlights the need to transfer control of cognitive activity from the teacher to the learner.

Holistic philosophies also build on constructivist ideology. Holistic models of reading emphasize relevant and meaningful reading and writing activities that integrate all language processes. Whole language encompasses literature based approaches to reading. Whole language methodology supports a Reading Workshop approach because

it is a child-centered, literature based approach to reading that integrates the teaching of reading, writing, speaking, and listening within a context that is meaningful to the learner (Wiener & Cohen, 1997).

Vocabulary instruction implemented in many individualized classrooms reflects sociocultural theory and whole language in that students constantly engage in peer and teacher collaboration as they choose and study words. As groups collaborate to select words for the class, each member contributes words. Through discussion, students verbalize word meanings, explain the importance of the word to the group and the class, and use the word contextually in a sentence.

Motivation Theory:

The early psychoanalytic theorists, such as Freud, viewed motivation as being related to basic biological drives or instincts that cause individuals to behave in certain ways. Behaviorists later viewed individuals as "blank slates that could be shaped through experience" (as cited in Gambrell, 1996). Modern cognition based theories of motivation see thoughts and feelings as mediators of behavior. According to Ames (1992), researchers studying motivation in the context of learning and school reform generally agree:

> (a) motivation is a function of students' perceptions of the value or meaningfulness of the information to be learned;
>
> (b) personal goals play an important part in establishing and maintaining motivation to pursue learning activities; and

> (c) motivation is an internal process that is influenced by personal beliefs and supported by educational contexts, including what teachers do and what instructional materials and practices are used (Ames, 1992, p. 268).

A major need, then, is to find a way to integrate theories of motivation to teaching practices. In reading instruction, a student's desire to apply effective reading strategies, enjoy reading, and look for opportunities to read are essential. Motivation theories support an instructional framework that affects the principles of challenging tasks, promoting choices, self-perceived control, and collaboration (Baker, Afflerback & Reinking, 1996, p. 117). Challenging tasks are those tasks appropriate for the learner without being too easy or too difficult. If a task is too easy, children become uninterested. If a task is too hard they feel frustrated. These motivational theories support the idea of students reading at their own interest levels and choosing their own vocabulary words. Providing students with choices is consistent with the construct of individual control as articulated in theoretical constructions of intrinsic motivation. "When students are provided with opportunities to make choices, they feel that they have some control over their own learning" (p. 118). The instruction utilized in this study highlights student choice in reading material as well as vocabulary selection.

Reader Response Theory:

Rosenblatt's (1978) transactional view of literacy emphasizes the interplay between the reader, the text, and context during the construction of meaning. In Rosenblatt's description of the transactional nature of language, she credits Pierce's

triadic formula linking the sign, the object, and the interpretant as grounding all linguistic processes (i.e. reading, writing, listening, and speaking) in human transactions with the world. This triadic concept reminds us that language is always transacting with a particular environment. Rosenblatt also asserts that any linguistic activity has both public (lexical, analytic, abstracting) and private (experiential, affective, association) components. The individual's store of language, that which is internalized through experiences with language in life situations, is referred to as the linguistic experiential reservoir. Meaning is made by applying, organizing, revising, or extending elements from the linguistic experiential reservoir (LER). Rosenblatt (1994) draws on William James who says we are constantly engaged in a "choosing activity," which he calls "selective attention." Language activity is brought into awareness or pushed into the background. The meaning we make depends on where selective attention is focused (Rosenblatt, 1994).

According to the transactional theory, meaning does not reside in either the text or the reader, but in the transaction that occurs between the text and the reader. Constructing meaning, then, suggests that one's ideas about and interpretations of text are not static but in a state of flux as new ideas, feelings, and interpretations are contemplated (Almasi, 1995). From this perspective, the transaction with the text effects the readers' attention to words, including vocabulary words. As students select vocabulary for their collections, their choice is effected by their reaction to the text at that moment in time. Students draw from their LER as they focus on vocabulary words. As they make decisions on which words to choose, "selective attention" occurs.

Reader response theory focuses on how each individual interprets literature. A reader's stance plays a critical role as well. The reader adopts a stance during the transaction with the text which reflects the reader's purpose. Rosenblatt (1978) proposes the notion of efferent and aesthetic psychological stances that readers assume while reading a text. Efferent reading (from the Latin word "effere," meaning "to carry away") is concerned primarily with the information gained from the text, while aesthetic reading is concerned primarily with the "lived through" experience of the text. The efferent stance draws mainly on the public aspect of sense, while the aesthetic stance includes proportionally more of the private aspect. Stance may fluctuate throughout the reading. The efferent and aesthetic stances play a role in vocabulary selection.

Reader response to literature as it relates to instruction occurs in both written and verbal activities. Self-selected vocabulary words, as implemented in this study, act as a type of reader response. The Reading Workshop approach includes a time allotted for writing in journals in which students respond to their reading. During either activity, the students fluctuate between efferent and aesthetic stances. It stands to reason that in the process of self-selection, students choose words that maintain some personal significance. Ownership of vocabulary occurs when students relate words to background experiences (Thelen, 1986). Students encounter personal connections with words that relate to the experiences they bring to the text.

Research on Individualized Reading Programs

Individualized reading programs, including Reading Workshop, have demonstrated success at improving student achievement and motivation. Studies

examining the Reading Workshop approach are limited, though, and research examining vocabulary instruction within Reading Workshop or any other individualized reading approach is even more limited. Therefore, this section will cover research on individualized reading programs, including Reading Workshop, that relate to components of the instructional approach used in this study. It should be noted that many of the studies do not examine vocabulary specifically, but use vocabulary as a measure of success.

The purpose of this section is to provide a review of the literature which is pertinent to the instructional strategies implemented in this study. First, studies on reading achievement as a result of time spent reading, including vocabulary growth and comprehension, are described. Second, studies dealing with student attitudes toward Reading Workshop are discussed to help support the context in which the vocabulary instruction in this study took place.

Time Spent Reading

Nagy (1988) states that "most growth in vocabulary knowledge must necessarily come through reading" (p. 32). Although wide reading is discussed later in the chapter as a component of the vocabulary instruction, it is discussed here as an important component of the Reading Workshop approach. Although limited, some research has been conducted relating to the effects of silent reading in the Reading Workshop approach or in similar approaches. In addition, the value of extended periods of reading time on student achievement is increasingly well known and has been positively supported in the literature.

Anderson, Wilson, and Fielding (1988) reported that time spent in voluntary individualized reading of literature was the best predictor of vocabulary knowledge, reading speed, performance on standardized tests, and reading achievement gains between second and fifth grade (p. 285). Guzzetti and Marzano (1984) studied effective schools and found that the amount of time spent on reading activities significantly affected student reading gain. Anderson, Hiebert, et al. (1984) found that the amount of individual, silent reading in school was significantly related to gains in reading achievement. Also, the amount of time spent reading outside of school relates to major growth in vocabulary.

Patterns of Reading Practice, a 1996 study published by The Institute for Academic Excellence, reviewed the findings of three large surveys of reading data from American schools, compiled over a five year span. Among the observations stated are:

> 1) There is a strong correlation between the amount of reading practice time that children in schools receive and their performance on standardized reading comprehension tests. Students who receive an hour of reading practice time daily show average reading comprehension development at up to twice the rate of national norms;
>
> 2) Reading practice is the most reliable predictor of student reading achievement--more reliable than either the instructional method used or the students' socioeconomic background;

3) The positive effect of increased reading practice on reading improvement is especially pronounced for students who start from a below-average reading level, suggesting that it can permit at-risk students to "catch up" to their peers; and

4) There is a significant correlation between increased reading practice and improvements in math scores, an indication of an important 'crossover effect' of improved reading comprehension on other academic disciplines (as cited in Knickelbine & Hauser, 1996).

As seen above, time spent reading has been found to support achievement, which is directly related to vocabulary knowledge and comprehension. A few studies have examined the effects of using silent reading within individualized reading approaches on student vocabulary and comprehension growth, as well as other measures of achievement. A study conducted by Davis and Lucas (1971) compared an individualized reading program resembling the Reading Workshop approach to a traditional basal approach using sixth, seventh, and eighth graders in California. The individualized reading program contained a center where students were permitted to select any type of reading material available. Students received some instruction in reading strategies using a mini-lesson format. Student achievement was evaluated using the Gates MacGinite Reading Test as pretest and posttest measures. Results indicated a significant gain in reading speed and

accuracy for seventh and eighth grade students. The Vocabulary sub-test gains favored the individualized reading group, but gains were not significant.

Although Mitev (1994) also found Reading Workshop to be an effective reading method for improving comprehension and vocabulary, Mitev's results were not as positive. Mitev's study during the 1992-1993 school year was conducted to examine the effects of Reading Workshop on reading comprehension, vocabulary development, and teacher attitude in fourth grade classrooms compared to the effects of an integrated curriculum approach. Four classes of fourth graders participated as experimental classes and served as a comparison to a control group consisting of four fourth grade classes from the 1991-1992 school year. The same four teachers that implemented the integrated curriculum approach in 1991-1992 received training on the Reading Workshop approach and became teachers for the experimental group during the 1992-1993 academic year.

The Reading Workshop approach in this study consisted of the following:

1. Four 45 minute sessions per week for eight months consisting of the Reading Workshop approach.
2. Each classroom contained seven stations, which addressed different aspects of reading instruction. Students visited one station per day and rotated through each in an eight day period. The stations included a reading center, a listening center, a research center, a project center, a skills center, a games center, and a discussion center.

3. Mini-lessons involving reading comprehension and decoding skills.

4. 20-30 minutes of center work and 15-25 minutes of reading silently.

5. The teacher assigned a minimum of 20 minutes of reading as homework.

Student achievement was evaluated using the Stanford Achievement Test as pretest and posttest measures of reading comprehension. Students were evaluated on two aspects of the instrument related to comprehension: overall reading comprehension and reading vocabulary. According to Mitev, "the study was based on the premise that increased time spent reading enhances reading comprehension" (p. 94). However, differences between control and treatment groups were not significant for reading comprehension or vocabulary improvement.

Crocker (1995) implemented a Reading Workshop approach in a three month study in which 21 students were exposed to a Reading Workshop for 11 of the 14 one-hour periods in a 14 day cycle. Three main components of the program were mini-lessons, independent reading, and the dialogue journal. Crocker assessed and evaluated the effects of Reading Workshop on a heterogeneous group of seventh graders' vocabulary, comprehension, attitude, and concepts of "self as readers." Students took pretests and posttests in reading achievement and attitudes, along with other self-concept tests. Crocker reported significant gains in all of these areas, which indicated that students

need more opportunities for time, ownership, and response in reading as provided by a Reading Workshop.

Roberts (1993) explored student achievement in a Reading Workshop program as well as student attitudes toward reading, which will be discussed further in the next section. Roberts examined two groups of adolescent readers (age 13-16) who were performing below average levels of competency within their grade level placement, to determine whether those who participated in Reading Workshop would make greater gains in the areas of reading achievement, attitudes toward reading, and academic self-esteem measures, than would those who participated in the traditional instructional program. Reading instruction for both groups took place during five, 42 minute periods per week throughout the 1991-1992 school year. Roberts discovered gains in achievement for both groups, but more gains for students participating in Reading Workshop. Findings supported no significant gains in attitude or self esteem.

Finally, Hernandez-Miller (1991) implemented Reading Workshop in a fourth grade classroom two days per week for eight weeks. The teacher who volunteered her class to participate in the study used the basal approach the remainder of the week. Reading Workshop began with a mini-lesson that took about 10 minutes. The lesson was followed with 20-30 minutes of silent reading and time for writing responses in journals. The workshop was concluded with a sharing session. The researcher assessed gains in comprehension through student retellings and found that students in the Reading Workshop program had higher degrees of comprehension and improvement in reading attitudes.

Student Attitudes

Reading motivation has often focused on attitudes toward reading (Gambrell, 1996). Research has shown that the type of reading instruction children receive will influence their attitude toward reading (Friend, 1995, Gambrell, 1996). Aspects of Reading Workshop, such as choice of reading materials, have been found to impact student attitudes toward reading. Attitude toward reading is important to this study because vocabulary instruction was incorporated into student silent reading time. The following studies conducted in individualized classrooms examine student attitudes toward Reading Workshop and other similar instructional approaches.

Greer's (1994) qualitative study of a fifth grade reading class consisting of 23 students examined students' attitudes toward Reading Workshop. The Reading Workshop used in this study closely followed the one developed by Atwell (1987) and was conducted four days each week for a month. First, the 45 minute workshop included a brief daily mini-lesson, during which time students engaged in discussions about literary genres, authors, reading strategies, characterization, etc. Next, students were given at least 20 minutes for Sustained Silent Reading (SSR). During SSR, weekly individual conferences between each student and the researcher were conducted. Student interviews asked students how they felt about the program, and "most students said it was really fun" (p. 33). Although Greer cites that time was a limitation of her study, her qualitative study projected that students preferred to select their own reading materials, their attitudes improved, and reading and discussions are important.

In another study, West (1994) explored third graders' perceptions of school and, in particular, of reading and writing. The study revealed that the children tended to perceive what had been called "whole language" as "fun" and what might be called "traditional approaches" as "work." The fun activities for these students were very closely aligned with Reading Workshop practices in that the activities allowed for personal preference, competence, ample support, high engagement, variety, and learning.

Robertson (1993) compared attitudes of remedial readers in a basal reading program with those in an individualized reading program. Ten first grade children, five from each of the classrooms involved participated in the study. The Elementary Reading Attitude Survey provided a means to find information regarding recreational and academic reading. The results showed that remedial readers in the individualized reading program had more positive attitudes toward recreational reading and academic reading than remedial readers in a basal reading program.

A similar study by Dale and Radell (1995) investigated the relationship between the type of reading instruction and the time spent engaged in authentic reading activities and reading attitudes as measured by the Elementary Reading Attitude Survey. Subjects included 23 students from a blended first/second grade whole language classroom in a suburban district and 18 students from a traditional second grade classroom in a more rural area. Results demonstrated no significant difference in academic attitude between the two classrooms. However, the recreational scores were slightly higher in the whole language classroom.

Friend (1995) also used the Elementary Reading Attitude Survey to determine attitudes of third and fifth graders participating in a literature-based approach and a basal approach. Students scored lower on posttest scores than pretest scores in both groups. Results were attributed to an end of school year "drop off." Although the scores seemed discouraging, posttest scores were still higher in classes using the literature-based approach than in those using the skills-based approach.

As can be seen, practices and studies in a Reading Workshop program can vary greatly. Teachers make decisions about which parts of the practice to adapt or remove according to their students' needs. Research has indicated that Atwell's Reading Workshop program has been effective as evidenced by a series of testimonials by teachers (Atwell, 1990). More qualitative research is needed to determine the characteristics that make Reading Workshop successful, especially as individualized reading approaches continue to gain acceptance in classrooms.

Vocabulary Instruction

Historical Background

Early vocabulary research, from about 1921 to 1950, focused on vocabulary size at various ages and educational levels, the relationship between vocabulary ability and general mental ability, which words were most useful to know, and the development of a corps of words for use in creating more readable texts (Beck & McKeown, 1991). Such research impacted reading practices through the use of readability formulas to control the vocabulary used in school texts and through words to be taught to young readers. Despite this influence, the frequency of vocabulary research declined during the 1950s for a

period of over 20 years (Graves, 1992). It was not until later that research began examining the complexity of vocabulary acquisition. A renewed interest in vocabulary instruction may have evolved due to theories explaining relationships between words and ideas. The role of inference and organization of information gained recognition, which developed into the research perspective for the 1970s and 1980s (Beck & McKeown, 1991). "Current research in vocabulary acknowledges vocabulary acquisition as a complex process that involves establishing relationships between concepts, organization of concepts, and expansion and refinement of knowledge about individual words" (p. 790).

Research comparing instructional methods of teaching vocabulary is inconclusive and contradictory (Baumann & Kameenui, 1991). In searching for answers, many studies ask whether or not vocabulary instruction makes a difference. Studies support direct teaching of vocabulary words as well as incidental and contextual learning of vocabulary words. Other studies demonstrate that practice and active engagement with words prove effective. Additional studies examine definition use to teach word meanings and vocabulary banks to store words. Finally, a few studies examine either the self-selection of vocabulary or the self-selection of literature from which to learn words. This study combines all of the above strategies to improve vocabulary instruction in an individualized reading program. Following a discussion of vocabulary knowledge and what it means to know a word, research involving the above strategies is described.

Vocabulary Knowledge

"Vocabulary knowledge is fundamental to reading comprehension; one cannot understand text without knowing what most of the words mean" (Nagy, 1988, p. 1). In addition, increasing vocabulary knowledge is a basic part of the process of education (Nagy, 1988). However, the concept of vocabulary knowledge involves much more than learning word meanings. According to Graves (1992), there are different word-learning tasks and different levels of word knowledge, which means there are different degrees to which students can know words.

"Learning individual words constitutes a series of tasks that vary markedly depending on the word being taught, the learner's knowledge of the word and the concept it represents, and the depth and precision of meaning that we want the student to acquire" (Graves, 1992, p. 107). Graves (1992) presents six word-learning tasks: learning to read known words, learning new words representing known concepts, learning new words representing new concepts, clarifying and enriching the meanings of known words, moving words into students' productive vocabularies, and learning new meanings for known words (p. 107). Learning to read known words involves words that are already in students' oral vocabularies and is a task for beginning readers. Learning new words representing known concepts involves learning to read words which are in neither students' oral nor their reading vocabularies but for which students have an available concept. Learning new words representing new concepts involves students learning to read words which are in neither students' oral nor their reading vocabularies and for which students do not have an available concept. Clarifying and enriching the meanings of known words incorporates refining students' knowledge of known words. For

example, students may not be able to distinguish the difference between a *city* and a *town*. Moving words into students' productive vocabularies deals with transferring students' receptive vocabularies to their productive (expressive) vocabularies. Finally, learning new meanings for known words involves helping students with words they can pronounce and know one meaning for but for which they still need to learn an additional meaning or meanings. All of these tasks are relevant to the study at hand.

According to Anderson and Nagy (1991), learning word meanings involves more than acquiring names for objects or actions. They suggest words and learners are complex. In addition, Anderson and Nagy state that words can be learned to different degrees. In the Standard Model of Word Meaning, Anderson and Nagy describe the ways word meanings could be stored in the mental lexicon:

> 1. Knowledge of a word's meaning is stored exclusively in the form of a rule or generalization defining the set of entities or events to which this word can be applied. No information about individual examples is stored permanently in the mental lexicon.
> 2. Knowledge of a word's meaning is stored exclusively in terms of a set of examples of the use of that word, along with the situations in which these examples are embedded. No rule is stored, but ordinarily one can be quickly derived from the examples when needed to interpret a new use of the word.

> 3. Knowledge of a word's meaning is stored both in terms of examples and in terms of a rule, perhaps an incomplete one, that helps determine the set of possible uses of the word (p. 694).

Beck, McKeown, McCaslin, and Burkes (1979) present three levels of word knowledge which include unknown, acquainted, and established. Words at the unknown level are simply not known by the student. Words at the acquainted level are recognized, but only with some deliberate attention. Words at the established levels are words whose meanings are easily, rapidly, and automatically recognized (as cited in Graves, 1992).

Stahl (1986) presents an intuitive scale consisting of three deeper levels of processing word meanings during reading: association, comprehension, and generation. According to Stahl, generation requires a child to process and produce the target word in a novel context, which is considered to reflect a deeper level of cognitive processing than the association and comprehension of the word. He suggests a word is "known" when a child is able to retrieve that word from memory rapidly and use it correctly in an uninstructed context. This ability to retrieve a word and use it correctly is similar to expressive vocabulary, which simply implies a child is able to freely use a word in writing and speaking.

The concept of vocabulary knowledge is concerned with the question, "What does it mean to know a word?" When posing this question, Baumann and Kameenui (1991) report that how one measures words depends upon the kinds of questions one asks about a student's word knowledge. "These might include questions such as: Can a student

identify a synonym for a word? Can a student generate an oral definition? Can a student place a word within a semantic category? Can a student discriminate a word's denotative and connotative meanings? Can a student express the obvious and subtle difference in meanings among a set of synonyms? Can a student use a word sensibly in an oral or written context?" (p. 607). Of importance to this study is that the goal of vocabulary instruction is to move students' knowledge of the words taught beyond the unknown level. However, the research questions reflect students' reading and writing vocabularies as well as their attention to words in their print environment.

Calfee and Drum (1986) report that "thoroughly knowing a word involves a number of skills, including, perhaps, associating it with a range of experiences, readily accessing it, being able to articulate one's understanding of it, flexibly using it, and recognizing synonyms, metaphors, and analogies that employ the word" (as cited in Graves, 1992, p. 110). Since no single encounter with a word is likely to achieve all of these goals (Graves, 1992), the use of the term "vocabulary knowledge" in this study includes these skills as part of one's "vocabulary knowledge."

The goal of vocabulary development is not only to increase vocabulary knowledge, but to "insure that students are able to apply their knowledge through independent encounters with words" (Beck & McKeown, 1991, p. 810). Therefore, increasing one's independent word learning abilities was an instructional goal used in this study relating to the acquisition of vocabulary knowledge. According to Nagy (1988), a problem with research in the area of vocabulary instruction is that research documenting which methods of instruction actually increase independent word learning has not been

done (p. 38). He suggests ways, though, that independent word learning can be increased. Among his suggestions are teaching context and structural analysis to help students learn to deal with unfamiliar words on their own. Nagy also proposes that the ability to use a dictionary is an important skill, despite its weaknesses. Vocabulary knowledge as it is used in this study encompasses students' abilities to generate definitions, students' abilities to use words correctly in oral and written contexts, students' abilities to recognize and understand words in their reading vocabularies, and students' abilities to learn words independently using acquired vocabulary skills.

Sources of Vocabulary Learning

Research supports the components of the instructional approach to vocabulary learning used in this study. The following research examines several important aspects of the vocabulary program including incidental learning of vocabulary through wide reading, vocabulary learning through context, direct instruction of vocabulary strategies and words, repeated exposures to words, and vocabulary self-selection.

Incidental vocabulary learning. It is generally accepted that the vast majority of words students acquire do not become part of their reading vocabulary through direct instruction. Nagy (1988) asserts that "most growth in vocabulary knowledge must necessarily come through reading" (p. 32). Students learn words "incidentally" during free reading. In other words, receptive language processes, such as reading and listening, provide learners with a context for discerning the meanings of unknown words. The assumption that reading is a major source for the acquisition of vocabulary has long been prevalent with Huey (1908) and Thorndike (1917), two of its early advocates (as cited in

Beck & McKeown, 1991). Studies by Nagy and Herman (1987) estimate that children will learn roughly five percent to twelve percent of words they do not know from a single exposure in context. Such an estimate accounts for 4,500 new words in a year (Kuhn & Stahl, 1998).

Reading and reading aloud proves to be one reading activity that improves vocabulary. Chomsky (1972) studied the effects of reading to, and the independent reading of, elementary children on language and reading development. He found that those who were read to most and who read more for their own leisure, scored highest on a reading achievement test and on language development. The reading achievement test included vocabulary and comprehension. Further, these results showed that the highest scores in syntactic development and reading achievement were made by those who read or were read to from books on higher readability levels than their own linguistic development. Chomsky concluded that reading books with harder words and more difficult syntax contributed even more to the development of reading vocabulary, comprehension, and language.

Due to the difficulty and abstractness of incidental vocabulary acquisition, few studies have investigated the incidental learning of word meanings from written context. Jenkins, Stein, and Wysocki (1984) asked average and above-average fifth-grade students to read experimenter-contrived texts containing vocabulary words embedded 1, 2, 6, or 10 times. The passages provided redundant information about the targeted words. Results demonstrated that 6 to 10 encounters with a word resulted in greater word learning than 2

encounters; 2 encounters were not enough to promote word learning, and above average students performed better at word acquisition than average ability students.

Nagy, Herman, and Anderson (1985) attempted to determine whether students acquire measurable knowledge about unfamiliar words while reading natural texts. They worked with average and above average eighth graders, who read 1,000 word narrative or expository basal reader excerpts containing 15 difficult words. The 15 most difficult words were selected as target words. After reading, the students completed two vocabulary assessment tasks on the 15 target words from each passage, an individual interview, and a multiple-choice test. These tasks required students to identify or provide definitions for the target words. Conclusions indicated that even though the absolute amount of learning was small, incidental vocabulary learning from context does occur. The amount of learning students demonstrated from the narrative was the same as that from the exposition. Similar results were found in an extended replication of the experiment where Nagy et al. examined third, fifth, and seventh graders.

Herman, Anderson, Pearson, and Nagy (1987) examined the extent to which variations in text features influenced incidental word learning of eighth graders. The participants read original science textbooks excerpts or revised versions designed to enhance text comprehension. Results suggested that both able and less able students who read a revised version explaining key concepts and their relationships acquired more word meanings incidentally than those who read original text versions.

Nagy and Herman (1987) suggest that if students start with no knowledge of the target words assessed, a single encounter in context is not likely to produce a measurable

degree of word knowledge, especially if the test of word knowledge used requires a fairly complete knowledge of the meanings of the words. This arguably accounts for the failure of some experiments to find a significant amount of learning from context (p. 25). Such an evaluation supports wide reading because wide reading provides students more opportunities to encounter unknown words as they read.

The research on incidental vocabulary learning suggests that the single most important thing a teacher can do to promote large-scale vocabulary growth is to increase the volume of students' reading. Graves (2000) proposes that by substantially increasing student reading time, teachers could substantially increase student vocabularies. According to Nagy (1988), "there is no way that vocabulary instruction alone can provide students with enough experiences with enough words to produce both the depth and breadth of vocabulary knowledge that they need to attain" (p. 32). He does suggest, though, that some vocabulary instruction is necessary. The following research describes vocabulary strategies that students can learn through instruction.

Context strategies. Kuhn and Stahl (1998) propose that if most words are learned from context, then it would seem that to increase the amounts of new words children learn yearly, one would need to "increase the volume of reading that children do and increase their efficiency in learning new words" (p. 122). Although students acquire words incidentally in context while reading, they might be taught procedures for learning words from context, so that they would be more efficient at learning words they encounter. Context can be taught through direct instruction (Szymborski, 1995). Several

studies investigate the use of context and "context clues" to increase students efficiency in vocabulary learning.

Kuhn and Stahl (1998) examined studies that attempted to teach children to be more efficient in learning words from context, through instruction in context clues or instruction in a more general process of learning words from context. They report that initial approaches to teaching children to use context involved the development and direct teaching of taxonomies of context clues. Taxonomies might be developed by studying what readers do when encountering unknown words. Poor flexibility in such methods led to educators and psychologists developing more flexible strategic approaches to derive word meanings. For example, strategies ranged from graphic organizers to the use of cloze exercises (Kuhn & Stahl, 1998).

According to Kuhn and Stahl (1998), recent approaches to teaching contextual analysis encourage a general modeling of learning words from context. Goerss, Beck, and McKeown's (1994) research involved training students with general guidelines on how to derive word meanings from context. Students were told to think aloud while reading texts with nonsense words during tutoring sessions. The instruction highlighted general sensitivity to unknown words and the use of both knowledge of the overall context and specific cues within the text. Students were taught that examining the available information about a word from the context was more important than deriving full definitions. Although findings may be inclusive without a control to account for normal vocabulary growth, results showed student growth in learning from context was unnecessary to derive full definitions. Research and instructional trends in learning words

from context have diverged from providing explicit taxonomies of context clues, to providing cognitive strategies in which students can use flexibly along with providing general guidelines and modeling (Kuhn & Stahl, 1998).

After investigating fourteen studies, Kuhn and Stahl (1998) summarized that students taught to use context to derive word meanings generally did better on measures that assess that skill. They also discovered that in the four studies implementing practice-only treatments, the treatment and practice-only groups did not differ significantly on the outcome measure. Therefore, Kuhn and Stahl suggest that students may benefit as much from practice in deriving words from context as they would from instruction in either a specific set of strategies or a list of clues (p. 129).

Elivian (1938) conducted one of the earliest studies of the role of context in the acquisition of vocabulary. She found that fifth and sixth grade students who read stories containing unknown words that were defined within the context could identify meanings of an average of only 22 percent of the words. Reading level made a substantial difference, however, with children of high reading ability able to identify meanings of 52 percent of the words (as cited in Beck & McKeown, p. 798).

Learning from context is central to most everyday vocabulary learning, and teaching people the processes, cues (clues), and moderating variables of contextual learning can help those who do not already use these vocabulary learning strategies. Sternberg (1987) recognizes three principles to keep in mind when teaching students how to learn words from context. First, presentation of words in context is insufficient: “One needs theory based instruction in how to use context. In typical contextual training

programs, the learning from context method consists of presenting words embedded in a series of sentences, either with or without prior definitions. But if children do not know the processes, cues, and moderating variables that can be used for contextual learning, they will not benefit optimally form such instruction" (p. 96). In other words, students have to learn how to learn from context before they actually can learn from it.

Second, presentation of the words in context, plus decontextualization knowledge and skills, is not enough: students need relevance of vocabulary to their everyday lives. If students or subjects receive uninteresting words in uninteresting contexts, whether for experimental credit or for a test the next day, it is perhaps unreasonable to expert high levels of learning. "Most people learn because they want to or have to" (p. 96).

Third, it is critical in vocabulary instruction to teach students to teach themselves. No matter how many words educators teach them directly, those words will constitute only a small portion of the words students will need to know, or that they eventually will acquire. Teachers need to give students a purpose for learning and using words, and teachers need to teach them how to uncover meanings. "If indeed, most vocabulary is learned from context, then what we most need to do is not to teach vocabulary from context, but to teach students to use context to teach themselves" (p. 96). Beck and McKeown (1991) concur that "the goal of vocabulary development is to insure that students are able to apply their knowledge through independent encounters with words" (p. 810).

Sternberg (1987) also presents data that were collected to test both the theory of learning from context and their application to vocabulary acquisition. In one test of 123

high school students, 32 passages of about 125 words in length were used. Thirty-seven words were used as target words and were embedded in the passages anywhere from 1 to 4 times, resulting in 71 presentations altogether. The passages included four different writing modes: literary, newspaper, scientific, and historical. The task was to define the words without looking back in the passages. Definitions were rated by graders. Multiple regression was used to correlate the number or strength of the occurrence of the cues and moderating variable with respect to their roles in helping in the deciphering of the meaning of each low-frequency word in the passage. In conclusion, the data were limited due to multicollinearity among independent variables. However, conclusions supported that "the contextual cues and moderating variables proposed by our subtheories provided good prediction of the goodness-of-definition data" (p. 98).

Another experiment investigated variables crossed with respect to each other. The variables included training group (experimental, control), testing time (pretest, posttest), test format (blank, nonword), cue type (stative descriptive, functional descriptive), class membership, unknown word type (abstract, concrete), restrictiveness of context with respect to the meaning of the word (low, high), and sentence function of the unknown word (subject, predicate). Fifty-nine out of eighty-one sophomores from an inner city high school with a mean IQ of 97 were trained during six sessions. The students were introduced to the word "context" and were taught strategies on how to use context cues. After training, their posttest scores were compared to students who were not trained. Results demonstrated a significant pretest to posttest gain in the trained group, but the

interaction between group and training effect was not significant (Sternberg, 1987, p. 100).

Sternberg's next experiment utilized 150 adults of average intelligence to examine their ability to use context cues. He used three training conditions and two control conditions, with the goal of training vocabulary building skills rather than training specific vocabulary (p. 101). After participants received training and practice using the mental process to figure out words in context, they were asked to define target words. In addition, participants in one control group received practice with no training while participants in the other control group were asked to memorize words. The training groups showed significantly greater gains on posttests than did the control groups. Also, the control group receiving relevant practice showed greater gain than did the control group receiving irrelevant memorization.

Rankin and Overholser (1969) and Quealy (1969) reported similar outcomes. In their studies, students correctly identified word meanings an average of 50 percent and 42 percent of the time. Once again, reading level made a significant difference in the outcomes. The studies also showed that success in identifying meaning differed as to the type of information offered by the context that served as clues to word meaning.

Graves (2000) concurs with Sternberg in that students need to be adept at learning words as they are reading. He also supports context as one strategy to infer word meanings. However, research has not indicated the most effective approach for teaching context. Graves does provide some suggestions for teaching students to infer meanings

from context. He suggests the use of concrete prompts, such as a chart with strategical steps. Steps might include the following:

(1) Recognize that you don't know a word.

(2) Look for clues to the word's meaning in the same sentence.

(3) If you don't find clues in the same sentence, look for clues in the rest of the paragraph.

(4) Guess the meaning of the word.

(5) Try the meaning you guessed to see if it fits" (p. 126).

Graves also recommends teacher modeling and support in the use of context clues.

Several more specific schemes for classifying context clues and providing students' with instruction have been suggested. Graves (2000) presents a modified version of Sternberg's system presented below:

1. Temporal cues: cues regarding the duration or frequency of the _____ (unknown word), or when _____ can occur

2. Spatial cues: cues regarding the location or possible location of _____

3. Value cues: cues regarding the worth or desirability of _____ or the kinds of affects _____ arouses

4. Descriptive cues: cues regarding the properties or _____ (its size, shape, color, odor, feel, and so forth)

5. Functional cues: cues regarding the possible purposes or uses of _____ or the actions _____ can perform

6. Causal/Enablement cues: cues regarding the possible causes or enabling conditions of _____

7. Class membership cues: cues about the class or classes to which _____ belongs

8. Definition or Synonym cues: cues to the meaning of ____

9. Contrast or Antonym cues: cues that give contrast to the meaning of _____" (p. 115-116).

Several studies examine the use of context and context clues to determine word meanings. Carnine, Kameenui, and Coyle (1984) used experimental passages designed to present clues to certain words. They found that fourth and sixth grade students were able to identify meanings of words presented in context easier than words presented in isolation. The type and distance of the clues made a difference--synonym clues were more helpful than clues requiring an inference.

In a doctoral dissertation, Ahn (1997) examined hearing impaired students' vocabulary learning from context during natural reading to verify the possible source of vocabulary development and factors that influence it. Eighteen subjects who missed 35 percent or more of the words on prevocabulary tests read a story and selected the meanings of 40 taken from the story. Twenty of the words had not been used within the context of the story. Results of the study showed the hearing impaired students learned

vocabulary meanings from context during reading. Also, the more contextual information given to readers, the less trouble they exhibited with the words. Finally, high ability readers learned more meaning than did low ability readers.

A study by Kilian (1995) investigated the effects of systematically varying the vocabulary-related instructions that students receive before reading to further understand the vocabulary/comprehension relationship. The sample, 299 students from fourth and fifth grade classrooms, participated in 6 different conditions which included reading passages with underlined words, reading and underlining difficult words, and trying to learn meanings from context. Posttest results indicated that the manipulation of the instructions given to student before reading does not influence their vocabulary learning during reading. Students of all ability levels increased their knowledge of the vocabulary words as a result of reading passages in which the words appeared.

Goerss (1995) trained elementary students to become more sensitive to context clues. The study examined five fifth and sixth grade remedial students who had been identified as low verbal students. Students were trained individually for 9 sessions of approximately 30 minutes each. Training tasks consisted of five steps: read/paraphrase; query/discussion; identification/rationale; other possible word meanings; and inferences of meaning. Results indicated that all five students improved on every component of the task. Qualitative analysis was used and revealed an internalization of the training task. According to the study, the students demonstrated their ability by thinking aloud about their reasoning.

Results of studies in using context to learn words vary in success measured. Kuhn and Stahl (1998) propose that the effects of context clue training may largely be due to making children more aware of unknown words in their reading as opposed to the results of specific strategies taught (p. 132). More observation studies are needed to examine the process students undergo while encountering unfamiliar words.

Although the use of context as an instructional strategy has been supported in the literature, some researchers report that "context, used as an instructional method by itself, is ineffective as a means of teaching new meanings, at least when compared with other forms of vocabulary instruction" (Nagy, 1988, p. 7). According to Nagy, a problem with context occurs when a person has no other knowledge about the meaning of a word. Context seldom supplies adequate information in such cases.

Beck, McKeown, and McGaslin (1983) suggest that not all contexts are created equal. Beck et al. studied the "natural text" of basal readers to test the effectiveness of natural contexts for deriving word meaning. They categorized four points along the continuum: misdirective contexts, which seem to direct a reader toward an incorrect meaning; nondirective contexts, which offer no direction for meaning; general contexts, which offer correct but general clues; and directive contexts, which seem to lead to a correct, specific meaning for a word (p. 178). Adults read fourth and sixth grade basal readers in which target words were blacked out and supplied the word or a synonym. Results varied by context type, but correct responses were given for 3 percent of the misdirective contexts, 27 percent of the nondirective contexts, 49 percent of the general directive contexts, and 86 percent of the directive contexts. The researchers concluded

that "the reliance of basal reading programs on story context and the independent use of the glossary as the central methods of vocabulary development is at best appropriate for only the most motivated and competent readers" (p. 180). They emphasize that contexts presented for the purpose of vocabulary instruction should be pedagogical contexts; meaningful contexts are only one component of effective vocabulary instruction; and repeated and varied encounters with the instructed words are necessary to expand children's vocabularies. Nagy (1988) concurs that context should not be as the sole approach and suggests combining definitional and contextual approaches.

Definitional strategies. Traditional vocabulary instruction usually incorporates some variety of a definitional approach (Anderson & Nagy, 1991; Nagy, 1988; Scott & Nagy, 1997). At one time, this method simply directed the students to look up a list of unknown words in a glossary of the textbook or dictionary. Definitions alone, though, can lead to superficial levels of word knowledge. In addition, memorizing definitions does not reliably improve reading comprehension (Nagy, 1988). According to Nagy, a good definitional approach includes sentences that illustrate the meaning and the use of the words defined.

Definitional methods of instruction can be problematic. The term "definition" is abstract in itself. According to Anderson and Nagy (1991), word knowledge normally does not take the form of definitions. They report that "knowing a definition is neither a necessary nor sufficient condition for knowing the meaning of a word" and "children successfully understand and use many words before they have the linguistic or cognitive sophistication to either produce or understand any sort of formal definition" (p. 718). One

problem with definition methods of instruction is that many definitions simply are not good because many of the content words in the definition are unfamiliar to students. In addition, definitions do not always contain enough information to allow a person to use a word correctly (Nagy, 1988).

Students are often asked to compose sentences using definitions (Scott & Nagy, 1997). This task can be a problem because definitions alone provide little information about how a word is actually used. In addition, definitions do not effectively convey new concepts. Miller and Gidea (1987) examined the task of having children write sentences for unfamiliar words on the basis of information given in a definition. Children provided sentences that reflected misconceptions about the meanings of words.

McKeown (1993) conducted a study in which fifth grade students participated in a similar task. McKeown used both conventional dictionary definitions and definitions revised on the basis of the problems she had identified in dictionary definitions. Results showed that 72% of student sentences created from standard definitions were judged to be unacceptable. Of the sentences composed from revised definitions, only 50% were unacceptable.

Scott and Nagy (1997) conducted two experiments using definitions with fourth graders. In the first experiment, students were to judge whether the usage of a word in a sentence was consistent with the meaning given for that word in a definition. The second experiment used the same type of task. Verbs were chosen as target words for both studies--the researchers believed verbs might be problematic for students. The results of

the experiments indicated that students had limited abilities to process the information in definitions.

The problems mentioned above were accounted for in this study. Students had their books (during silent reading) and sentences (on their study sheets) to refer to the word's usage, and dictionary strategies were taught directly. In addition, teacher modeling occurred throughout the study in order to help students to use dictionary definitions. Dictionary and contextual strategies were combined to help students uncover word meanings. Other strategies that were used in this study are discussed below.

Direct instruction. Teachers often neglect vocabulary instruction, assuming students will learn words incidentally (Zimmerman, 1997). "Few words are taught and even fewer are taught well" (Baumann & Kameenui, 1991, p. 610). In this study, self-selected words that the class chose for the test were taught to the class through direction instruction and through repeated exposures to the words.

"Direct instruction of vocabulary does have demonstrable effects on students' vocabulary learning and comprehension" (Kuhn & Stahl, 1998, p. 131). According to Jenkins et al. (1989), if one teaches 10 words through direct instruction and 8 of these are learned, then a student will know those 8 words better than if their gain from reading a single passage was measured. Overall, learning from context accounts for more words learned, but direct instruction proves to be effective as well.

Strategies for teaching specific words, such as semantic relatedness, prior knowledge strategies, and word clustering, involve the presentation of words in relation to words of similar meaning and/or relating new words. These approaches involve

classifying, where the emphasis is acquiring new concepts versus labels for known concepts (Kameenui & Baumann, 1991). Semantic mapping is often used in content area instruction, but can be beneficial to teach any set of related words.

Another approach developed to teach word knowledge directly is called "Rich Vocabulary Instruction." The Rich Vocabulary program was initiated by Beck and McKeown (1983). The program presents words to students in meaningful categories (semantic categories), provides definition tasks, sentence generalization, and oral production. Game-like activities promote response speed, motivation in vocabulary and word play, and the use of acquired words used in new contexts beyond the classroom.

Experiments utilizing Rich Vocabulary Instruction report positive findings. In two experiments involving fourth graders, Beck and McKeown (1983) evaluated the effectiveness of their instructional program compared to control subjects who participated in regular reading and language arts activities. Rich vocabulary instruction proved to be superior in that: 1) instructed students learned the meanings of more of the words that were taught; 2) they demonstrated greater speed of lexicon access (measured by reaction time on a word categorization task); and 3) comprehension of stories that contained taught words was superior for instructed students.

The impact of instruction on writing was studied by Duin and Graves (1987). They studied the impact semantically related words had on essay writing. Three groups of seventh graders were taught 13 words over a period of six days. One group participated in "Intensive Vocabulary and Writing Instruction"--similar to Extended/Rich Instruction with the addition of writing activities. Another group participated in Intensive Vocabulary

Alone (no writing activities). The last group participated in Traditional Vocabulary Instruction with worksheet and definition activities. The authors reported that teaching a set of related words to students before they write not only results in students learning the meanings of those words, but also improves the quality of their essays.

Nagy (1988) addresses "intensive vocabulary instruction," which includes integration, repetition, and meaningful use of words. The first property of intensive vocabulary instruction is that it integrates instructed words with other knowledge. Activities that support integration include semantic mapping, semantic feature analysis, hierarchical arrays, linear arrays, and the use of synonyms. This study used synonyms in order to help students understand words.

A second property of intensive vocabulary instruction is repetition, which was an important component of the vocabulary instruction in this study. Students received repeated exposures to words at school and at home. Nagy (1988) emphasizes that vocabulary instruction must "ensure not only that readers know what the word means, but also that they have had sufficient practice to make its meaning quickly and easily accessible during reading" (p. 23). Other research supports the importance of repeated exposures to words (Beck & McKeown, 1983; Beck & McKeown, 1991; Graves, 1992). In order to effectively provide repeated opportunities for students to learn words, teachers must make word learning meaningful. "Meaningful use" instruction is Nagy's third property of intensive vocabulary instruction, which is intended to help the learner use the instructed words meaningfully. According to Nagy, meaningful use instruction results in

students learning more because they are actively involved and depth of processing occurs, where information is more likely to be remembered.

Word parts. The use of word parts, such as suffixes, prefixes, and base words, is another strategy that can aid students in learning words (Graves, 1992). This strategy is called morphemic analysis (also referred to as structural analysis in this study). "Morphemic analysis is a word identification strategy in which the meanings of words can be determined or inferred by examining their meaningful parts" (Baumann & Kameenui, 1991, p. 622). Components of morphemic analysis include affixes, including suffixes and prefixes; inflections, such as plural tenses and possessives; compound words; and contractions. This study focused on student use of suffixes, prefixes, and base words.

Graves (1992) reports that fourth grade is an appropriate grade for instruction in word parts and provides insight on how to teach suffixes and prefixes. According to Graves, some suffixes have grammatical meanings that can abstract and difficult to teach. He suggest students should be taught that suffixes are word parts added on the end of base words. In addition, students need to learn to recognize suffixes so that they can separate them from the base word in order to decode the base word.

Prefixes usually have clear lexical meanings and are attached to the base word in a fairly straightforward way, making prefixes easier to teach than suffixes (Graves, 1992). Students should be taught that "prefixes are meaning-bearing units that are attached to the beginnings of words to change their meaning" (p. 121). In addition, knowing the

meanings of prefixes can help readers uncover word meanings, resulting in a powerful way to increase vocabularies (p.121).

Graves and Hammond (1980) designed a study where one group of seventh grade students learned the meanings of nine commonly used prefixes and how to use them to decipher meanings of other prefix words. This group was compared to a group taught definitions for the same set of words with no mention of prefixes and a control group. The prefix group outperformed both groups when given a set of transfer words. Conclusions maintained that "students can use their knowledge of the prefixes they are taught as a generative tool" (as cited in Baumann & Kameenui, 1991, p. 623).

Self-selection. Few studies examining vocabulary instruction involve self-selection strategies such as those implemented in this study. This study implements self-selection of books as well as self-selection of vocabulary words. Graves (2000) recommends that teachers ask students which words they do not know. He suggests teachers list potentially difficult words on the board and have students raise their hands if they do not know a word. "This approach is quick, easy, and risk-free for students; it also gives students some responsibility for their word learning" (p. 120). In this study, students provide the words they do not know, but selection occurs on an individual basis.

Dole, Sloan, and Trathen (1995) implemented an "alternative" vocabulary approach which involved student choice of words from literature (novels) selected by the teacher. Dole et al. state that "using literature selections to teach students the meanings of words makes sense intuitively" (p. 460). Their goal for the study was to develop an alternative instructional unit that would provide students with procedural knowledge

about *how* to select key words in a literature selection, and conditional knowledge about *why* those words are important. This knowledge could impact student understanding of the selections they read.

The sample consisted of 43 tenth grade students from two English classrooms. The teacher was a participant observer. Before the study, an "Important Words Test" was given to get a sense of students' initial understanding about important words and how they related to their reading selections. The pretest required students to select 5-10 words from a selection that they thought were important to the story and explain why they thought the words were important. Students also identified the selected words as "unknown," "acquainted," or "established" in their vocabularies. Pretest results showed that students selected particular words as important to a selection because they did not know their meanings as opposed to choosing words from a selection that relate to critical elements in the selection.

The two English classes were used as a control and experimental group. The experimental group received an "alternative" type of instruction while the control group was administered a "traditional" type of instruction. Students in the alternative group were directed in criteria for selecting important words from a selection: the word must not be established in their vocabularies; the word must be one that is actually used in the selection; and the word must accurately describe a key character, important event, idea or theme in the selection. Both the experimental group and the control group progressed through three instructional phases. Phase One of the study involved whole class instruction with a book and vocabulary words selected by the teacher. Phase Two of the

unit involved group work with a book chosen by the teacher and words chosen by the students. Phase Three of the unit consisted of independent work where students selected their own words and discussed the selection without any teacher guidance. Student assignments with words included defining the words' meanings. The alternative group was instructed to use both context to predict meanings and dictionary definitions. The traditional group defined words using a dictionary, but did not use the context of the literature selection to help them identify the appropriate definition.

The vocabulary test that was administered as a pretest at the beginning of the study was administered again as the posttest after the first two novels were read. The words on the test described critical elements in the selection. On the posttest, students identified words as "unknown," "acquainted," or "established." Students in the alternative group identified 60% of the words as established in their vocabularies, while students in the traditional group identified only 39% of the words as established. Conclusions indicated that students in the alternative group were more confident in their knowledge of the important vocabulary words than were students in the traditional group.

Haggard's (1986) method of vocabulary self-selection involves a program where student choice of vocabulary words is not restricted to words found in literature. Haggard presents a vocabulary self-collection strategy referred to as VSS (Vocabulary Self-Collection Strategy). Student generated word lists promote student interest through the use of personal experience. VSS begins with the teacher encouraging students to find words in their environment and to determine the meaning as best they can from context. The words are written on the board. Students take turns identifying their words,

explaining where the word was found, providing a context-derived definition, and telling why they think the class should learn the word. The teacher leads an interactive discussion of the words. Definitions may also be compared to dictionary definitions. After discussion, the word list is narrowed to one final list of words and definitions for vocabulary journals. Study assignments may be made with an evaluation at the end of the week (Haggard, 1986).

A study of VSS with college students involved students logging their vocabulary development as it occurred. No other instruction took place. The study focused on motivating factors in vocabulary instruction, sources for new words, strategies for learning, and metalinguisitc awareness. Results of the study indicated that internal motivation provides a strong influence on vocabulary acquisition; written text is a major source for new words; adults develop "systematic, personalized strategies" to learn words (p. 635); words relating to or defining experience are learned more quickly and with more ease; and the act of collecting words increases awareness and sensitivity to new words and enjoyment in word learning. (Haggard, 1986).

Finally, Zimmerman (1994) examined the effects of using self-selected reading and interactive vocabulary instruction. Her study did not include the self-selection of vocabulary words. She worked with three groups of ESL (English as a Second Language) students attending pre-university intensive English programs--the first group received interactive vocabulary instruction plus self-selected reading. The second group received self-selected reading only, and the third group received no treatment. Questionnaires examined how words are learned. Results determined that three hours a week of

vocabulary instruction accompanied by some self-selected reading led to significant gains in vocabulary knowledge. Zimmerman argues that the most effective way of addressing the vocabulary needs of ESL students is through a combination of reading and interactive vocabulary instruction. Zimmerman provides several explanations for conclusions relating to the effects of vocabulary instruction. First of all, Group 1 received both controlled encounters with the vocabulary words in a combinations of written and oral contexts designed to provide meaningful practice. She concludes that "context may assist the process of remembering new words" (p. 95). In addition, reading is not the only source of meaningful encounters with vocabulary words--any encounter with a word can be meaningful. "A second possible explanation for the better performance of the experimental groups lies in the probability that repeated encounters may lead to a better sense of how words are used in actual communication" (p. 96). The experimental group received exposures to words in the text, through homework activities, and through communicative group activities in class. Finally, a third explanation for the results concerns the range of skills involved in vocabulary acquisition. Zimmerman emphasizes that no single approach to vocabulary instruction can address all vocabulary skills and that a combination of approaches to vocabulary learned should be used.

The literature review includes research on a variety of strategies, which are all used in this program. Research was provided that supported each component of vocabulary instruction implemented in this study. The use of a variety, or combination, of methods of vocabulary instruction is also supported in the literature. In describing guidelines for a curriculum of individual words, Graves (1992) states that "the curriculum

would include a variety of different sorts of instruction" (p. 111). Baumann and Kameenui (1991) recommend that teachers refrain from limiting themselves to a narrow set of vocabulary instructional techniques. Beck and McKeown (1991) found that no one method of vocabulary instruction has been found to be superior and "there is advantage from methods that use a variety of techniques" (p. 803).

By providing students with a variety of strategies, teachers are promoting independent word learning. Nagy (1988) argues that students can be helped in specific ways to become better independent word learners so that they benefit more from whatever reading they do. According to Nagy, research documenting which methods of instruction increase independent word learning has not been conducted. His suggestions for teaching students to become independent word learners include strategies that help students learn to deal with unfamiliar words on their own. The use of context and structural analysis as well as the use of dictionaries can help students when they encounter unfamiliar words. All of these methods contribute to students' vocabulary knowledge. To reiterate, the goal of vocabulary development is not only to increase vocabulary knowledge, but to "insure that students are able to apply their knowledge through independent encounters with words" (Beck & McKeown, 1991, p. 810).

Summary

The above studies provide a background and support for the instructional strategies implemented in this study. In summary, chapter 2 divided the review of literature into three main sections. The first section highlighted a theoretical background that included constructivist theory, motivation theory, and reader response theory. The

second section examined research on individualized reading programs focusing on time spent reading, motivation, and Reading Workshop research. The third section described vocabulary instruction by including a historical background of vocabulary instruction, an examination of vocabulary knowledge, and sources of vocabulary learning.

CHAPTER 3

PROCEDURES AND METHODOLOGY OF THE INVESTIGATION

Overview

This study was designed to determine the effects of one approach to vocabulary instruction on the reading and writing vocabulary of fourth graders in an individualized reading program. Student learning of vocabulary words was analyzed quantitatively through the use of vocabulary tests and was observed qualitatively through classroom observations made in fieldnotes.

This chapter describes the procedures used for executing the vocabulary approach studied. The chapter first outlines the design of the study, then provides information about the participants, including a description of the community from which the population was drawn, the sample population, and the procedure for selecting the sample. This chapter also presents a description of the reading program and the vocabulary instruction used in the study along with research questions to be answered, procedures for data collection, and methods of data analysis. The chapter concludes with the limitations of the study and the summary of the chapter.

Research Design

The research in this report is descriptive in nature and uses qualitative and quantitative research methods. Triangulation occurs through the use of multiple forms of data collection. Data were collected over a twelve week period of time beginning with the

second week of school starting August 16, 1999, extending through November 19. The researcher acted as a participant observer. Data collected during students' reading time and pre-determined writing samples were examined to find emerging patterns during vocabulary learning. Quantitative data from the semester were analyzed to determine student learning of vocabulary words.

Description of the Community

The study took place in a city located in North Central Texas. The city has a population of approximately 45,000 people. According to information provided by the school district's administration office, the ethnic make up of the district is .45 percent American Indian, 1.25 percent Asian, 8.81 percent African American, 19.11 percent Hispanic, and 70.38 percent Anglo American (contact the researcher for more information). The elementary school used for this study is one of ten elementary schools in the district. The school is near the downtown area of the city, and in the past was one of the more "elite" schools of the area. The school now receives Title I funding, which means that the majority of the school population qualify for free lunch. The school buses to the site approximately 90 students daily from the low income housing area of the city. The school provides services for 429 students. According to information provided by the district's administration office, the ethnic make up of the elementary school used in the study is approximately .23 percent American Indian, .47 percent Asian, 17.48 percent African American, 12.36 percent Hispanic, and 69.46 percent Anglo American (contact the researcher for more information). Most grade levels include three teachers with approximately 20 students per class. However, the school downsized the fourth grade for

the 1999-2000 school year due to a small number of fourth graders and included only two fourth grade teachers.

Description and Selection of the Sample

For the purpose of this study, the names of the teachers and students who participated in the study are replaced with pseudonyms throughout this report. The subjects to receive vocabulary instruction were fourth graders (9-10 year olds) in Ms. Jones's class (Group A). Ms. Jones's class size fluctuated throughout data collection, initially containing 26 students and concluding with 19 students. After the first few weeks of vocabulary instruction, three students were transferred to another school because the participating school had too many fourth graders by state law. The ethnic make up of Ms. Jones's class, before losing any students, included 18 Anglo Americans, 5 African Americans, and 3 Hispanic students. By the end of the study, Ms. Jones's class consisted of 15 Anglo Americans, 3 African Americans, and one Hispanic student. All of Ms. Jones's students participated in her reading program and received parental permission to participate in the research study.

The researcher and the teacher agreed that reading instruction would occur from approximately 7:50 a.m. to 8:50 a.m. This particular school and class was chosen for the study because of the teacher's flexibility and her interest in this approach to teaching vocabulary. Ms. Jones was previously familiar with the program having seen the program implemented in a fourth grade classroom at same elementary school in a similar study (Pilgrim, 1998). In addition, Ms. Jones was a co-worker of the researcher two years before, during the 1997-1998 academic year. The age of the students was also taken into

consideration. Fourth grade is an appropriate age to focus on vocabulary instruction in an individualized environment--the students are generally independent readers capable of choosing their own vocabulary words. Other experts support vocabulary instruction, including the use context clues, word parts, prefixes, and suffixes, as appropriate for fourth grade (Graves, 1992).

Another group of subjects (Group B), who did not receive vocabulary instruction from the researcher, participated in the data collection. Participation from a second group of students was used to determine the effects of vocabulary instruction on scores from a fill-in-the-blank test. The other fourth grade class at the same elementary school--Ms. Smith's class--served as the second group, or Group B. They took a vocabulary test each week without receiving any prior instruction on the selected words.

Ms. Smith's class size fluctuated as well. She provided ethnicity information on those students who returned parental consent forms (all but one student obtained permission to participate). The ethnic make-up of her class was as follows: 14 Anglo Americans and 5 African Americans. However, Ms. Smith had three students who did not participate in her reading time. Instead, they attended resource. Therefore, they did not take the vocabulary tests. Without these three students, the ethnic make up of Ms. Smith's class included 13 Anglo American and 3 African American students.

This particular class was chosen to participate in the study for several reasons. The researcher's main goal was to select a class similar to the class receiving vocabulary instruction. The classes were similar in ethnic make up and in gender. Because this

elementary school uses no particular system or bias when assigning students to their classes, the researcher assumed both classes contained a similar population.

Description of the Program

The individualized reading program used by the researcher and the process of the selection of vocabulary words to be used during the course of the study is described in this section. The process of developing selection skills occurred in three phases, which are also described in this section.

The subjects in the study receiving instruction participated in an individualized reading program based on Reading Workshop (Atwell, 1987). Reading Workshop individualizes instruction through student choice of books. The major components of the program relevant to the study included a mini-lesson, silent individualized reading time, vocabulary instruction and practice, and response time. Mini-lessons were used to teach skills students needed such as book and vocabulary selection. Reading time allowed students to read silently while the teacher conferenced with individual students. In addition, vocabulary implemented in this study used student-selected vocabulary words.

Reading Workshop is an individualized reading program that takes student reading abilities and interests into consideration. Therefore, most students were reading different books, depending on their choice of reading material. Since student choice played a role in the reading materials used for instruction, the researcher and the teacher continually helped students in their choices. Teacher suggestions for the students included the following: 1) look at the title of the book; 2) read the back of the book for a

summary; 3) ask yourself if the book contain topics of interest; 4) read the first paragraph or two and ask yourself if there were more than two words you did not know.

In this study, it was acceptable for students to read at any reading level. Hunt's work (1996) with informal reading inventories, frustration levels, and instructional levels demonstrates that a student's interest can frequently cause the reader to transcend not only their independent but also their instructional level. The student's instructional reading level is "the reading ability or grade level of material that is challenging, but not frustrating for the student to read successfully with normal classroom instruction and support" (Harris & Hodges, 1995, p. 118). The student's independent reading level is the "grade level of material that is easy for a student to read with few word-identification problems and high comprehension" (Harris & Hodges, 1995, p. 115). The researcher and the teacher encouraged students to choose from the classroom library. However, some students read books selected from the school library or a home library. Due to the teacher's familiarity with the classroom books, use of classroom books helped the teacher in checking student comprehension. Students read their chosen books during the silent reading time.

Mini-lessons, short lessons at the beginning of reading time, provided opportunities for the teacher to teach needed reading skills or strategies to students. Mini-lessons varied throughout the study. For example, during the first three weeks of the reading program, the researcher taught students how to choose books, how to choose vocabulary words, how to use the vocabulary words, and how to define words. Teacher modeling occurred constantly. Throughout the twelve week study, the researcher

emphasized vocabulary strategies as well as other skills and strategies the researcher and the teacher thought the students needed. Although the researcher and the teacher understood that the time needed for mini-lessons would vary, they expected mini-lessons to last approximately 15 to 20 minutes.

The students in the classroom selected the vocabulary words to be studied during the investigation. Words were self-selected from books they read during silent reading time. Vocabulary self-selection differs significantly from traditional instruction because of the use of student generated word lists and its emphasis on personal experience and world knowledge (Haggard, 1986). In addition, words are not pretaught during an individualized reading program as is the traditional manner; therefore students received opportunities that occur during reading to recognize unfamiliar words and for them to gain an understanding of how to internalize these words.

Mini-lessons at the beginning of the study guided students to recognize vocabulary words. The process of developing selection skills occurred in three phases throughout this study, modeled after the phases and procedures used by Dole, Sloan, and Trathen (1995) in their study with high school English students. Dole et al. incorporate choosing important words in their study on teaching vocabulary within the context of literature. Phase One of the reading program was the modeling phase, where the teacher provided guidelines for choosing words. During Phase One of this study, the researcher used a novel read together in class to model vocabulary selection. The researcher also modeled how to record the words as reading occurred. As students read, they recorded words they wished to learn on their vocabulary ring, which was simply a set of index

cards connected by a metal ring. Some guidelines were as follows: 1) Students were taught to choose words they recorded because the students reading more challenging books may interrupt their reading to the point where they lack comprehension; 2) Students were taught to write the name of the book, the page number in which the unknown word was located, and the word with a definition on the card. This procedure allowed students opportunities to go back and try to "figure out" the word; 3) Students were taught to critique the word by asking: is the word one that he/she would use or the rest of the class would want to know?; 4) Students were taught how to try to uncover meanings using context clues. If a student could not derive the meaning using context clues, dictionaries could be used. Phase One ended after three weeks of instruction.

During Phase Two, the researcher assisted students in selecting their own books. As students read their books individually, they recorded words they wished to learn. This opportunity to record words was their initial practice in selecting and defining words on their own. Teacher support and guidance in this phase was still crucial since the selection and defining of words took much practice. Many students needed help attending to unfamiliar words. Phase Two continued through week seven. Finally, in Phase Three of the program, students worked independently to select their own words. Less researcher/teacher guidance was necessary in the selection process. The researcher mainly answered student generated questions about vocabulary.

Beginning with Phase Two and extending through Phase Three, the researcher administered vocabulary tests in order to determine vocabulary learning. In addition, a practice test was given to both groups the third week of Phase One. The practice test

contained just five words--words Group A had already discussed together while reading the class novel during Phase One. The other eight vocabulary tests contained ten words each. At the beginning of testing during Phase Two, students had enough words in their vocabulary rings from which to devise a list of words of their choice for the test. The test words were selected from students' rings with some researcher guidance and group selection during Phase Two. At the beginning of each week, students were placed in five groups. Each group's assignment was to designate two words from the collective vocabulary they wanted the class to learn. Each group worked collaboratively to put the two chosen words into sentences. The teacher encouraged students to use elaborated sentences so that other students received a clear example of the word's use. For example, instead of writing, "He is *annoying*," a group was directed or shown to write, "My brother is *annoying* because he always makes strange noises." Teacher guidance was often necessary to ensure participation, the quality of discussions within groups, and words were understood correctly. Each group's work was collected by the teacher and combined to make a class vocabulary list of ten words. The words were typed along with the students' sentences. The list served as a handout for the students to study during the week (See Appendix D). The handout was distributed on Tuesdays, and together the class defined the words. A student's definition obtained from a dictionary was often used or the class would together come up with a simpler definition. Students added the definitions to the study sheet. Through the whole class discussion that took place as the words were defined, the students received even further instruction through teacher modeling on how to define or use a word.

Throughout the week, mini-lessons were used as necessary to provide direct instruction on word knowledge such as prefixes or suffixes and context clues. After mini-lessons, when students were reading silently, the researcher, and sometimes the teacher, worked one-on-one with students to listen to them read, to check comprehension, and to aid in the vocabulary selection process.

At the end of the week, the researcher administered a vocabulary test which assessed student knowledge of the ten words that had been studied throughout the week. The test was similar in format to the study sheet. The sentences on the vocabulary test contained researcher-made fill-in-the-blank sentences. Each student received a score based on the percentage of sentences and word matches they answered correctly.

The vocabulary test was also administered to the second group of students, Group B, who did not receive instruction on the words. The test was administered at Ms. Smith's discretion, though it was recommended she give the test early in the week so that her students would not ever see the other class study sheet.

Qualitative and quantitative data were collected to answer the following questions:

Question 1: What are the effects of one approach of vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized program?

a. Do students use vocabulary knowledge gained as they read their books?

b. Do students use vocabulary knowledge gained as they write in their reading journals or in their writing samples?

c. Do students attend to their vocabulary words in the environment?

Data Collection

Daily vocabulary procedures for the researcher were as follows. On Mondays the researcher placed students in five groups so that they could collaboratively select words for the test. Each of the five groups of students contributed two words so that the class would have a total of ten words to learn for the test. The groups were instructed to compose sentences with their selected words. On Tuesdays the class received a study sheet typed from the words selected the previous day, including the student generated sentences. The class defined the ten words together and discussed meanings and usage. On Wednesday and Thursday, the researcher spent five to 10 minutes reviewing or discussing the vocabulary words with the students. On Fridays, the researcher provided a typed vocabulary test to assess the students' knowledge of the vocabulary words. The researcher visited the class daily to instruct and observe.

Student use of vocabulary words in writing was examined in two ways: through the writing done in their reading journals and through the writing pieces finished during writing instruction with the classroom teacher. Journal writing occurred approximately three days per week at the end of reading time when students received 10 to 15 minutes to write about their books. Writing instruction did not occur on a regular basis, so the researcher obtained three finished pieces during the twelve week period for the purpose of examining student use of vocabulary words in their writing.

The researcher had two sessions with each individual in the study in order to interview him or her. The first interview occurred at the beginning of the study, and the

second interview occurred at the end of the study. The researcher derived the questions for the first interview based on previous experience with fourth grade students' knowledge of vocabulary (See Appendix C). The second interview contained questions stemming from the researcher's observations (See Appendix C).

The researcher, as the reading teacher each day, acted as a participant observer. As a participant observer in a research setting, a researcher becomes immersed in the setting, its people, and the research questions. In addition, a researcher carefully, systematically experiences and records in detail many aspects of a situation. Finally, a participant observer constantly analyzes observations for meaning and for evidence of personal bias (Glesne & Peshkin, 1992). The researcher had been involved in implementing this vocabulary program for six years, in her own classroom as well as others.

A variety of data sources were used. Qualitative and quantitative data were obtained in the study. Qualitative strategies were used to uncover information about how students used their vocabulary knowledge in reading and writing. Qualitative collection strategies included observations, field notes, student and teacher interviews, and analyses of students' writing. In addition, in order to prevent biased reporting, peer conferencing occurred between the researcher and two colleagues. One of the colleagues was the classroom teacher. The other colleague was a teacher outside of the school environment, who had participated as the teacher during a similar vocabulary study (Pilgrim, 1998). The researcher and the classroom teacher conferenced at least once a week to discuss the vocabulary program. The researcher and the other knowledgeable colleague also met on a regular basis during the study to discuss the vocabulary program, the findings, and

analyses. As an outsider familiar with the program, the other teacher was able to contribute unbiased opinions.

To ensure the reliability of the coding used during data analysis, a colleague checked the researcher's coding. Interrater reliability was carried out. Interrater reliability procedures are described in Chapter 4. In addition, transcribed teacher and student interviews were checked by an outsider and interrater reliability was once again examined.

Teacher interviews: The teachers in both participating classrooms were interviewed at the end of the study in an informal setting. The interviews included both broad and narrow questions (See Appendix B). The purpose of interviewing the teacher of the classroom involved in the vocabulary program, Group A, was to gain teacher insight on the implementation of the instructional program and on student use of vocabulary in reading and writing. The purpose of interviewing the teacher of the group receiving no vocabulary instruction, Group B, was to gain insight on teacher observations of student behaviors during the administration of the test.

Student Interviews: Students receiving vocabulary instruction were interviewed before and after implementation of the vocabulary program (See Appendix C). The interviews were audiotaped and transcribed. Interviews conducted a priori provided insight into each child's experience with vocabulary instruction and knowledge of terminology that was be used. The questions for the second interview evolved during the course of the study.

Field Notes: Field notes were taken by the researcher at the site and transcribed immediately for analysis. The field notes included descriptions of many observations, including comments made by the students during the vocabulary selection process, behaviors exhibited by the students as they read and used their vocabulary rings, behaviors exhibited while students worked in groups or with the teacher, or observations made while the researcher read journals.

Weekly Assessment: The word selection and the test format for the assessment used in this study are discussed below along with reasons supporting the researcher's choice of assessment.

This assessment used student-selected vocabulary derived from words chosen by the class. A limited number of vocabulary studies use the components of self-selected reading and self-selected vocabulary from which to model a valid assessment of vocabulary. Haggard's (1986) Vocabulary Self-Collection Strategy (VSS) provides a vague reference to a vocabulary test. During VSS a class generated list of selected words is narrowed to a final list of words for everyone to learn. Study assignments provide practice activities. Haggard states that "at the end of the week, students are tested on the class word list according to instructional goals (spelling requirements, definitions, use in sentences, etc." (p. 535).

Traditional tests of vocabulary assess whether a word is learned by measuring the students' ability to produce a definition (Kuhn & Stahl, 1998). However, Kuhn and Stahl maintain that evidence from both linguistics and psychometrics suggests that one does not need the knowledge necessary to produce a dictionary definition in order to understand a

word in context. In addition, even students with good verbal abilities have difficulties verbalizing definitions (Kuhn & Stahl, 1998).

Johnson, Pittelman, Shriberg, Schwenker, & Morgan-Janty (1978) label a fill-in-the-blank format a cloze test. According to Johnson et al., the best ways of assessing a child's knowledge of word meanings is not yet known. They stress the need for research analyzing methods of testing word knowledge. Their study examines student performance on vocabulary cloze tests as well as student performance on two other types of tests in order to evaluate the techniques used in assessing children's vocabulary knowledge. Johnson et al. found that subjects performed similarly on all three assessment formats.

Various literature sources examine test design and test format used to test comprehension, but very few resources refer to test design for the assessment of vocabulary. Many teacher oriented guides provide information on developing classroom assessments (Cangelosi, 1990; Oosterhof, 1999; Osterlind, 1998; Roid & Haladyna, 1981; Swezey, 1981), yet vocabulary is not specifically addressed. In addition, fill-in-the-blank tests are rarely mentioned.

Graves (1986) and Russell (1954) report that word knowledge is usually assessed through the use of multiple choice formats that measure vocabulary knowledge by the recognition of a synonym or a definitional phrase. Some researchers such as Anderson and Freebody (1981) argue that multiple choice tasks are useless because they are not sensitive to the various dimensions of vocabulary knowledge. While assessing vocabulary knowledge, the test implemented in this study requires that students understand how a word is used as opposed to providing a word meaning. As Baumann and Kameenui

(1991) note, how one measures words depends upon the kinds of questions one asks about a student's word knowledge. The question the test and test preparation was designed to answer relates to two of their questions: Can a student place a word in a sentence semantically? and Can a student use a word sensibly in an oral or written context?

Instructional goals of the approach used in this study were to explore student use of reading and writing vocabularies as a result of using an individualized reading program. Therefore, the researcher devised a test that required students to provide words that make sense within sentences. The words chosen by the class were defined and studied during the week (the words were put into sentences). The selected words were assessed using a researcher-made test with fill-in-the-blank answer choices. Each child received a score on the test based on the percentage of sentences in which he or she used the correct word. In addition to scoring the tests, the researcher evaluated student answers in order to uncover particular problems with the test. For example, if several students tended to miss the same test question, the test and its questions were further analyzed by the researcher in order to determine the problem.

Schmitt (1994) discusses the design of vocabulary tests with the purpose of helping teachers with little or no knowledge of testing gain a better understanding of vocabulary testing. Schmitt presented a set of principles for guiding the writing of vocabulary tests. The principles, written in question format, include test purpose, determination of the words to be tested, testing of breadth vs. depth of knowledge, and how students' knowledge is to be elicited.

The first question for developing a vocabulary test deals with the purpose of testing. In this case, the purpose was to find out if the students had learned the words selected and studied throughout the week. Schmitt contends that testing words taught is the most common reason for testing vocabulary. Schmitt's second question asks teachers what words they want to test. In the current study, the assessment included words selected by the students, which were studied during the course of the week.

Schmitt then asks the teacher to decide what aspects of the words will be tested. For example, if a teacher intends to test how well students know individual words, then depth of knowledge will be tested. If a teacher wants to measure the number of words learned, then breadth of knowledge will be tested. The fill-in-the-blank weekly assessment tested breadth of knowledge in that the outcomes provided a percentage of the total words learned. Qualitative methods mentioned earlier addressed depth of knowledge through observations collected in field notes.

The fill-in-the-blank format of the assessment is receptive and productive in nature. Fill- in-the-blank tests are usually considered productive because students are expected to used the target words in their writing. However, the fill-in-the-blank test used here provided a word bank, which made the test somewhat receptive. Receptive tests generally aim to have students recognize target words when reading (Schmitt, 1994).

Schmitt's final question involves decisions about construction of the instrument based on the previous information. She suggests that since different students may have different preferences and different strengths in testing, a combination of several formats

may be beneficial (Schmitt, 1994). Only one format was used for this study, but the format leaves room for teacher modification.

Finally, Schmitt reports that the best vocabulary test is one in which a student who knows a word is able to answer the test item easily, while a student who does not know the word will find it impossible or difficult to provide a correct answer. Once again, qualitative observation was analyzed as the study progressed. Many students finished very quickly, within five minutes, demonstrating a familiarity with the words. Others took up to 15 or 20 minutes. As Schmitt suggests, context was used so students could understand which meaning of a word was being tested; however; trick questions where contexts invite multiple words were avoided. Schmitt also suggests someone take the test before it is used so that problems may be uncovered beforehand. The classroom teacher took the weekly vocabulary assessment prior to the test date in order to check for problems.

Experts in the field of vocabulary instruction were contacted in order to obtain additional information or opinions about the fill-in-the-blank test, especially in reference to the validity of the format. Three people, considered to be experts because of their research experience in the field, were contacted by phone and/or email: Doctor Michael Graves, Doctor Isabelle Beck, and Doctor William Nagy. As a result of feedback obtained, a second group of students was added to the study, where initially just one group was to participate (Beck, I. L., personal communication, August 1999). A second group, not receiving the vocabulary instruction, would provide information relating to whether or not students could experience success on the test with or without prior vocabulary instruction on the words. This information could help demonstrate test

validity. Control groups, however, are not normally used to determine test validity. Therefore, the second group of students does not serve as a "control group." It simply provides the researcher with additional information about student success on fill-in-the-blank tests.

Other information was provided by the experts mentioned above. It was noted that the fill-in-the-blank test format assesses a student's ability to fit a word into a sentence context, as opposed to his or her ability to recognize a definition (Graves, M. F., personal communication, September 18, 1999). One concern was that the test was a low level test (Beck, I. L., personal communication, August 1999). The test might potentially cause problems for ESL (English as a Second Language) students, who could get certain words confused (Nagy, W. E., personal communication, July 29, 1999). It was important that the researcher take care to avoid contexts that invite ambiguous word choices. Finally, Nagy stated, "I personally like the format you have chosen because it includes usage, an important aspect of vocabulary knowledge not captured in many multiple choice tests, and because it requires the students to apply their knowledge of the word and integrate it with the sentence context, rather than just parroting a definition" (Nagy, W. E., personal communication, July 29, 1999).

Data Analysis

Data analysis continued throughout data collection. The data set was qualitative in nature and included field notes, teacher and student interviews, and observations of student writing. Additionally, elements of quantitative data were collected, including vocabulary test scores for the group receiving vocabulary instruction and the group

receiving no vocabulary instruction. The use of multiple-data-collection methods contributed to the trustworthiness of the data by providing triangulation. The practice commonly called “triangulation” involves the incorporation of multiple data sources, investigators, and theoretical perspectives in order to increase confidence in research findings (Glesne & Peshkin, 1992, p. 24).

Qualitative data, including interviews and field notes, were analyzed daily using the method of contact summary. A contact summary involved a single sheet with some focusing or summarizing questions about a particular field contact (Miles, 1984). A field contact in this case was any visit to the classroom by the researcher. The contact summary sheet was used to guide future classroom visits, to suggest new or revised codes, to review the field contact write up, and to aid with further data analysis (Miles, 1984). The researcher “reviewed the rewritten field notes and answered each question briefly to develop an overall summary of the main points in the contact” (p. 51). The questions for the contact summary sheet, taken from Miles (1984), were as follows:

-What people, events, or situations were involved?

-What were the main themes or issues in the contact?

-Which research questions and which variables in the initial framework did the contact bear on most centrally?

-What new hypotheses, speculations, or hunches about the field situations were suggested by the contact?

-Where should the field-worker place most energy during the next contact, and what kinds of information should be sought? (See Appendix G)

Coding was ongoing throughout data collection. "To review a set of field notes, transcribed or synthesized, and to dissect them meaningfully, while keeping the relations between the parts intact, is the stuff of analysis" (Miles, 1984, p. 56). The coding helped differentiate and combine the retrieved data and the reflections made about the information. According to Miles (1984), codes are tags or labels for assigning units of meaning to data. Assigning codes throughout data collection and analysis helped retrieve and organize information later in the study. Because previous investigation (Pilgrim, 1998) provided some insight into the present form of vocabulary instruction, a predetermined start list of codes was initially used. The list came from the conceptual framework, list of research questions, problem areas, or key variables obtained from previous investigation (Pilgrim, 1998). Additional codes evolved as a result of data analysis. The codes were descriptive in that the researcher was attributing a class of phenomena to a segment of the data (Miles, 1984). The final set of codes was defined and examples of each code were recorded (See Appendix H). The process of determining the final set of codes and the process of organizing the data into more general, explanatory levels of information is described below.

The coding process involved several examinations of field notes and interviews. Field notes and interviews taken at the site were written in a journal and then transcribed daily by the researcher. After transcribing the field notes, the researcher read the data and

coded by hand any interesting observations or statements made by students that related to the vocabulary study. After the data were coded, the researcher completed a contact summary sheet to further analyze findings and to guide the next classroom visit. Observations noted one day often provided insight for the researcher into the next day's classroom visit. With one person--in this case the researcher--taking notes and instructing students, guidance from the contact summary sheet proved helpful.

The codes represented categories that reflected the research questions. For example, as the researcher noted students using their vocabulary words in their journals and in verbal expression, the researcher placed the observations in the category that reflected the research questions, as recommended by Merriam (1988). The researcher also noted students repeatedly attending to their words as they read and encountered them in their text. Therefore, another category emerged. As coding continued, ideas and reactions to the meaning of what the researcher was doing began to develop (Miles, 1984). As data analysis progressed, the researcher began to uncover patterns or emerging themes within the numerous existing codes. These emerging themes were used to organize data into a smaller number of overarching themes. Miles (1984) calls this level of coding "pattern coding," which is used to develop more general, explanatory levels of information.

Pattern coding helped summarize the data and provided information from which the researcher began to draw results and conclusions. At the end of the twelve weeks of vocabulary instruction, the coded material was organized into the themes discovered as a result of pattern coding. A word processing program, Microsoft Word, was used to "cut and paste" the coded sections into separate pages, compiling each theme as a file. The

final themes were: Receptive Vocabulary, Expressive Vocabulary, Motivation, and Vocabulary Knowledge.

Next, student reading journals and student writing samples were analyzed. Journals were read daily by the researcher. Any student writing from the journal that was relevant to the vocabulary study was recorded by the researcher and transcribed daily. For example, if a student used one of his or her vocabulary words in their journal entry, the sentence was recorded by the researcher. After transcribing notes from reading journals, the researcher coded the data. Student writing samples were analyzed as they were provided by the teacher. Three writing samples were completed within the time frame of the twelve week study. The writing samples were read and the researcher recorded any data within the papers that was relevant to the research study. For example, if a student used one of his or her vocabulary words within the sample, the researcher recorded that sentence. After the writing samples were analyzed, notes were transcribed and coded. The journals and the writing samples were both coded in the same manner as field notes--first by hand and then by "cutting and pasting" the coded sections in order to organize the data into the thematic framework. The reading journals and the writing samples both remained in the classroom at the end of the study.

Finally, interviews were analyzed. The interviews were transcribed and analyzed for qualitative data. Interview answers were first analyzed individually. Then answers were compiled together under each question so that the researcher could compare the answers of the entire class. Instead of coding each interview by hand, the researcher used

the word processing program to “cut and paste” the relevant data into one of the final categories.

The researcher presented a data set to a colleague in order to examine interrater reliability. The data set contained a week’s worth of recorded data, beginning with a Monday and ending with a test on Friday. The data set also contained notes taken from one of the student’s journal entries. The defined codes and examples of each code were presented to the colleague and explained in detail. The colleague coded the data set using the defined codes and the examples. There was 88 percent interrater reliability. Discussion following coding resolved any differences in assigning codes.

Interviews were also examined for interrater reliability. Two student interviews (one from Interview #1 and one from Interview #2) and a teacher interview were transcribed by a second person. The interviews typed by both transcribers were compared and interrater reliability was determined. Interrater reliability of the transcriptions for the first student interview was 99 percent; interrater reliability of the transcriptions for the second student interview was 91 percent; and interrater reliability of the transcriptions for the teacher interview was 95 percent. Most of the differences on the transcribed interviews were due to omitted words like *it’s* and *and* that were insignificant in relation to the content of the interviews. Only one error found was significant--the number *10* was typed instead of the number *15*. This error occurred on the transcribed teacher interview.

Finally, the quantitative data were reported in a comparison table for both groups taking the tests. The tests had been graded upon completion throughout the study. Averages for each test were determined and an overall average of tests taken by the

students was figured for each group. Narrative discussion was used to report coded results of field notes and interviews as well as to describe the nature of the interactions that occurred in answer to the research questions.

Limitations

1. The study was limited in that variations in approaches to Reading Workshop exist and the study may be difficult to replicate.

Nancie Atwell (1987) states that, "What I do in my classroom next year will not look exactly like the classroom I described here. New observation and insights will amend theory; the process by which I translate theory into action will change. The agents for change are my students" (Atwell, 1987, p. 254).

2. Limitations occurred because the researcher acted as a participant observer.

Although Glesne and Peshkin state that how much of a participant one can or should be varies (Glesne & Peshkin, 1992, p. 56), maximum information would be gained if the researcher could be in the classroom everyday for the entire school year. This researcher was present in the classroom Monday through Friday for one hour during reading time throughout the twelve week study.

3. The study was limited in that effects may be attributed to instructional influences such as having two teachers in the room during reading time, where the norm is one teacher per classroom.

4. The study was limited in that the parents and teachers were aware that a study was being conducted.

In studies involving human subjects, if individuals are aware that they are participating in a study, this knowledge may alter their performance (Borg & Gall, 1989). In experimental studies, this effect is referred to as the Hawthorne Effect.

5. The vocabulary test used in the study limits results because information relating to validity and reliability of the weekly assessment is limited.

6. Results from the test taken by the group not receiving instruction on the words is limited because, according to the teacher in an interview, the group lacked motivation and became frustrated.

7. A possible limitation caused by the fill-in-the-blank vocabulary test used in this study is that this type of test could be especially hard for ESL (English as a Second Language) students. What "sounds" incorrect to a native English speaker but is grammatically correct could be a problem for ESL students. (Nagy, W. E., personal communication, July 29, 1999).

8. Students is this study chose particularly difficult words for the test. This action could be one limitation of using self-selected vocabulary words. Although students chose difficult words that were unfamiliar to the class as a whole, Nagy (1988) reports that familiarity cannot be the primary criterion in vocabulary selection for intense instruction. Students may be familiar with a word, yet not know it well enough to comprehend the word when it is used in text. "Time might be better spent on words that are already partially known, if a deeper knowledge of them is necessary for understanding the text" (Nagy, 1988, p. 34).

9. A limitation of the study occurred due to a conflict between the teaching practices implemented by the school and the researcher. The elementary began using the Reading Renaissance program after the study began. This practice affected the students' confidence in choosing any book they wanted for reading time. Due to the focus of the Reading Renaissance program on reading level, many students felt they had to choose books on their "given" level.

Summary

This chapter described the procedures used for executing the vocabulary approach studied. The chapter first outlined the design of the study, then provided information about the participants, including a description of the community from which the population was drawn, the sample population, and the procedure for selecting the sample. This chapter also presented a description of the reading program and the vocabulary instruction used in the study along with research questions to be answered, procedures for data collection, and methods of data analysis.

CHAPTER 4

RESEARCH RESULTS AND FINDINGS

Purpose of the Study

The purpose of this study was to determine the effects of one approach to vocabulary instruction on the reading and writing vocabulary of fourth graders in an individualized reading program. Student learning of vocabulary was analyzed qualitatively using classroom observations recorded in field notes, teacher and student interviews, and student journals and writing samples. Student learning of vocabulary was analyzed quantitatively through the use of vocabulary tests.

Research Questions

The following questions guided the research study:

1.) What are the effects of one approach of vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized program?

a. Do students use vocabulary knowledge gained as they read their books?

b. Do students use vocabulary knowledge gained as they write in their reading journals or in their writing samples?

c. Do students attend to their words in the environment?

Results

This chapter presents the results of the qualitative and quantitative analyses of the data collected over twelve weeks of instruction and observation. To answer the research

questions, data from tests, interviews, field notes, and writing samples were analyzed for qualitative and quantitative information. The qualitative data helped to answer the main question and the subquestions. The quantitative data helped to answer one aspect of the main research question involving the effects of the instruction. After data analysis, the researcher discovered that results for questions 1a (Do students use vocabulary knowledge gained as they read their books?) and 1c (Do students attend to their words in the environment?) overlapped. Therefore, results for questions 1a and 1c are combined in one section and discussed together. All of the students' vocabulary words identified in Chapter 4 will be italicized so the reader can note the particular words.

Results that Answer Question 1

What are the effects of one approach of vocabulary instruction on the reading and writing vocabulary of fourth graders in an individualized program? This question is complex and needs to be discussed in three parts. The effects of vocabulary instruction on student performance on vocabulary tests are reported first. Then the effects the instruction appeared to have on student motivation toward vocabulary are discussed. Finally, students' vocabulary skills and vocabulary knowledge are examined.

Vocabulary instruction and student performance. Graves (1986) and Russell (1954) report that word knowledge is usually assessed through the use of multiple choice formats that measure vocabulary knowledge by the recognition of a synonym or definitional phrase. Some researchers, such as Anderson and Freebody (1981) argue that multiple choice tasks are useless because they are not sensitive to the various dimensions of vocabulary knowledge. While assessing vocabulary knowledge, the test format

implemented in this study requires that students understand how a word is used as opposed to providing a word meaning. As Baumann and Kameenui (1991) state, how one measures words depends upon the kinds of questions he or she asks about a student's word knowledge. The question the test was designed to answer relates to two of Baumann and Kameenui's questions--1) Can a student place a word in a sentence semantically?; and 2) Can a student use a word sensibly in an oral or written context?

Goals of this study were to explore student use of reading and writing vocabularies as a result of using an individualized reading program and a student self-selected vocabulary program. Therefore, in order to answer the questions posed by Baumann and Kameenui (1991), a weekly test was devised that required students to provide words that make sense semantically within the written context of a sentence. The words chosen by the class were defined and studied during the week. The selected words were assessed using a researcher-made test with fill-in-the-blank answer choices. Each student received a score on the test based on the percentage of sentences in which he or she used the correct word. Quantitative measures taken from the data in this study consist of scores and averages taken from the students' tests. The test results are discussed in this section. Factors effecting test results are then discussed using data from field note observations and data from analysis of students' test answers. Results more specific to reading and writing vocabulary are discussed under the subquestions 1a, 1b, and 1c.

The students of Ms. Jones's class, which will be called Group A, were given a study sheet each Tuesday to study for the remainder of the week. The study sheet contained a list of the self-selected words as well as the groups' sentences with each

word. As the class defined the list of words together on Tuesday, students added the definitions to their study sheets. On Friday, they took a test on the words. Another group of students in Ms. Smith's class, which will be called Group B, received no instruction on the words prior to the test. They also took each test weekly. Table 1 shows a comparison of test results between Group A and Group B. All students participating in the study took the tests. If students were absent on the day of the test, they took the test the following school day. Due to student attrition during the study, the number of students taking tests in Ms. Jones's class decreased throughout the twelve weeks. Ms. Smith's class only fluctuated by one student.

Table 1

TEST RESULTS

Test #	Group A (Avg.)	Group B (Avg.)
Practice test	89.56	55.29
1	94.55	45.00
2	88.00	33.89
3	92.00	32.35
4	93.50	30.00
5	82.00	28.82
6	79.50	27.65
7	95.50	45.88
8	95.26	32.35
Avg.	90.04	34.49

Group A's scores were used to determine vocabulary learned. With an overall average of 90.04 percent, results indicate that students in Group A demonstrated that they had learned the words as evidenced by their achievement on vocabulary tests. Group B's scores were used to determine whether or not students could experience success on

fill-in-the-blank tests without receiving instruction on the vocabulary words. Success was evidenced by an average score of 70 or above. With an overall average of 34.49, Group B performed with limited success on the vocabulary tests. Results indicate that vocabulary instruction provided knowledge to students in Group A that helped them perform well on vocabulary tests.

As can be seen from Table 1, students' test scores fluctuated from one test performance to another. The fluctuation seemed to be due to limitations with test design. Although the researcher took extreme care while writing the tests, and the classroom teacher checked the tests for mistakes, a few problems still occurred. Students in both groups struggled on two of the tests in particular. On test #5 (See Appendix E), four students in Group A failed, which brought the class average down to an 82. The four failing scores consisted of two 60s, a 50, and a 30. The classroom teacher administered this test because the researcher was not present due to an illness in the family. The researcher had also been absent the day before the test. Ms. Jones did not know the cause of the low scores, but proposed that it was due to the researcher's absence. Ms. Jones said that one student even tried to cheat. Another cause of low scores could have been Fall Break. The previous week had been the students' Fall Break--a week of vacation beginning the first week of October. It took students a while to reach the same level of achievement after Fall Break.

There were two test questions on test #5 that students in Group A seemed to confuse. One question read, "Policemen often work with _____ people. The answer should have been *hostile*. The other question read, "My sister and her _____ friends

were spying on me." The answer should have been *ornery*. Students could reasonably confuse the two sentences, yet the answers were still considered incorrect. Group B's test results demonstrated a problem with many of the questions, with no specific answer pattern emerging. They performed poorly on the entire test, with an average of 28.82 percent.

Students also struggled on test #6 the following week (See Appendix E). Five students in Group A failed test #6, bringing the class average down to a 79.5. From test analysis, the researcher found that seven students missed the first question, which interfered with the remainder of the test. The first question read, "The learner paid _____ attention to the teacher's directions." The answer was *scrupulous*. The class definition for *scrupulous* was " careful and exact." This definition was modified from the dictionary definition. One problem was that the student-made sentence on the study sheet was unclear. "The teacher *scrupulously* walked to the principal's office." Even though several other examples were discussed in class throughout the week, *scrupulous* was a difficult word for the students. Students confused the test question with the following (Question # 9): "Ms. Jones did a _____ unit on Texas." The answer was *comprehensive*. Question # 9 was a weak test item. In addition, *comprehensive* was a difficult word to approach on the part of the researcher. The class definition was "complete; including much." The sentence on the study sheet read, "Rachel did a *comprehensive* study on animals." This definition is how *comprehensive* was used in Adam's book when he found the word. The class studied Adam's usage of the word. The "complete" in the definition confused some students. For example, Rob raised his hand

once during the week to give me a sentence with *comprehensive*. His sentence was incorrect-- "I took a *comprehensive* bath." Jack also made an incorrect sentence with *comprehensive* during the week-- "I did a *comprehensive* on meal worms." Abby made the sentence "I did a *comprehensive* on football."

As mentioned above, students chose the words that were to be on the test. Many of the words the students chose were very difficult for fourth grade students. Some examples of the other difficult words on test #5 and test #6 include *protégé*, *reproached*, *ominous*, and *moored*. Because the focus of the vocabulary instruction is self-selection, the researcher could not discard the difficult words. However, students were informed that they seemed to be choosing very difficult words.

Not only did students choose words that were difficult, they chose words that the researcher found difficult to define and explain due to the abstract nature of the words and the definitions. On occasion, the researcher attempted to deter students from difficult or confusing words for tests. For example, when a group chose *indignant* for the test, it was suggested that *indignant* was a difficult word for fourth graders. The students did not take difficulty into consideration--they tried to choose "long" words. On one occasion, Connie wanted her group to choose *inconsiderate* because she thought it would be the longest word. Groups took pride in the difficulty of their words. Two groups even bragged to each other-- "We have *boisterous* and *humiliating*." The other group retorted, "so, we have *appetizing* and *sheepishly*..."

Difficult definitions and sentences from words selected by the students are discussed below. The definition for *protégé* was "someone you mentor or tutor (like a

student).” The sentence on the study sheet was “Freddy was Mr. Long’s *protégé*.” There were limited ways for students to use this word. The definition for *reproached* was “to blame for some wrong.” The study sheet sentence read, “The teacher *reproached* the boy for writing on the chalkboard with a marker.” The definition for *ominous* was “evil or threatening.” The study sheet sentence was, “The football coach made an *ominous* remark to the referee.” This sentence was not a clear example of how *ominous* is most often used. Finally, the definition for *moored* was “to be anchored.” The sentence was, “The ship was *moored* at the dock.” Once again, there were limited ways to use this word. Words such as *protégé, reproached, ominous,* and *moored* required rigorous explaining on the part of a teacher. Students also needed several opportunities to practice and make sentences. Even with practice throughout the week, some students still struggled with the words. Students seemed to choose less difficult words for the last two tests, and the results of the final two tests were very favorable.

Difficult tests and vocabulary words were previously discussed. Especially important to consider are the tests that seemed very easy for most students. When asked to evaluate one test, the students all commented that it was easy. The amount of time spent on the tests also demonstrates the ease with which students finished. Most of the students in Ms. Jones’s class finished the test within 5 minutes. There was one test where some students finished in 2 minutes. Data revealed that students finishing first usually scored 100s. The students were not given assistance during the tests. There was one instance where Jack received minimal assistance during the test in order for him to learn how to read the sentences and find correct answers. He was always the last to finish. He

worked for thirty minutes on one occasion. He was not allowed thirty minutes again because Group B received only 20 minutes to take the test. The students who always finished last, usually scored lower. These generalizations made as a result of data analysis concur with Schmitt's (1994) report that the best vocabulary test is one in which a student who knows a word is able to answer the test item easily, while a student who does not know the word will find it difficult to provide a correct answer.

According to Beck and McKeown (1983), repeated exposure is important in order for the students to learn words. The use of the term "exposure" includes exposure at home or at school. By the time of the test on Friday, students had three nights at home to learn the words. Students took home the study sheets as a part of their homework assignment. According to the students, some studied at home while others did not. In interviews, students mentioned that their parents called out the words to them. Many students waited until the night before the test to study the words at home. However, the students received exposure to the words throughout the week. Although students did not spend a great deal of time studying in class, they received exposure to the words during reading at least twice a week. Following is a description of the time the class spent studying in the classroom, as it may have had an effect on student test performance.

Students were exposed to the vocabulary words in a variety of ways. Sometimes when class started, students would, upon instruction, get out their student sheets and study with a neighbor for 5-10 minutes. Reading lessons often began with a quick review of the word list. As a part of the review, volunteers were asked to either give a definition for a word or to give the word for its definition. The class often got out study sheets

during these quick reviews and went through the list pronouncing the words out loud. It was observed that many students who either received limited help at home or did not study experienced difficulty pronouncing some of the words. Graves (1992) addresses the task of learning to read words which are in neither oral nor reading vocabularies. One of the word learning tasks Graves describes is learning new words representing new concepts, which approaches the demanding task of learning to read words that are in neither oral nor reading vocabularies. According to Graves, beginning in about the third grade, the focus of instruction on vocabulary should shift from that of learning to read known words to that of learning new words representing known concepts. In addition, he recommends that the words come out of students' reading materials. Because some students in the study could not yet read the words, repeated exposure was necessary. It could be inferred that some of the words with which students struggled were unknown concepts and were from reading materials too difficult for them.

Students were further exposed to their vocabulary words through various activities. There were four instances where activities were used to review vocabulary words. The class took part in an activity called "Word in a Bag" during two review sessions. Students drew an index card containing one of their vocabulary words from a grocery bag. The student defined the word in any manner he or she could. The student then provided a sentence with the word. If the student knew the word, he or she chose another person to draw a word. If the student did not know the word, he or she asked another student for assistance. The students enjoyed this activity. Some missed the words, while others demonstrated that they knew the words. During two other classroom visits,

the researcher observed the class doing an activity at the board. Vocabulary words were written on the board and students came up one at a time. A student would slide the eraser along the board so that it would eventually land underneath one of the words. The students' objective was to provide a definition and a sentence to go with that word. If a student got the words correct, he or she chose the next student to come up to the board. If the student did not know the word, he or she could call on someone else to help. Surprisingly, many students missed the words. They were even given five minutes to study after one of the activities on one occasion because they performed so poorly. Their failure could have been because they had only one day with the study sheets. Hearing the words repeatedly provided exposure for those students that did not study at home.

During another classroom visit, the researcher observed that students used their study sheets and made new sentences using their vocabulary words. On a different occasion, students drew illustrations to go with their words. Finally, in yet another class period, students were provided time to look over words to prepare to act them out or to give a sentence. Students received two minutes to come up with ideas, then the class went through the list. Students displayed enthusiasm as well as knowledge of the words. Even words like *ablaze*, which were difficult to act out, were attempted.

Study preparation within the vocabulary program was important for success on the tests because many students did not study at home and many students needed exposure to various ways of using the words. Although the study sheet contained one sentence for each word selected, each word could be used in a variety of contexts. In addition, various forms of the words within their word families could be practiced so that students could

learn many ways to use the word. Occasionally, students did not recognize an alternate form of a word. For example, John found the word *enthusiasm* and wanted to write it in his vocabulary ring. We had already studied *enthusiastic*, which is in the same word family as *enthusiasm*. Lilly's group wanted to select *reassure* as a vocabulary word, but Lilly reminded them that the class had already studied *assure*. Other students experienced success with using various form of words. Denise recognized that a word in her book, *astonishment*, was similar to a previous vocabulary word, *astonished*. Study preparation in class often provided students with many opportunities to use the vocabulary words in sentences. Throughout the study, students continued to make semantical errors when creating sentences with vocabulary words, but repeated exposure to the words helped some students recognize that words belong to families and can be used in various ways.

Vocabulary instruction and student motivation toward vocabulary. Another effect of the vocabulary instruction was that the program appeared to influence student motivation toward vocabulary. Modern cognition based theories of motivation see thoughts and feelings as mediators of behavior. According to Ames (1992) researchers studying motivation in the context of learning and school reform generally agree:

> (a) motivation is a function of students' perceptions of the value or meaningfulness of the information to be learned; (b) personal goals play an important part in establishing and maintaining motivation to pursue learning activities; and (c) motivation is an internal process that is influenced by personal beliefs and supported by educational contexts,

> including what teachers do and what instructional materials and practices are used (Ames, 1992 p. 268).

Motivation theories support an instructional framework that affects the principles of challenging tasks, promoting choices, self-perceived control, and collaboration (Baker, Afflerback, & Reinking, 1996, p. 117). Students in this study exhibited positive affective behaviors that seemed to demonstrate motivation toward learning vocabulary words. The behaviors, including student comments, actions, and written expression, were recorded in interviews and field notes. These observations were examined qualitatively.

Effects of instruction on student motivation to learn vocabulary words were discovered in interviews as well as in field note observations. First, the interviews are discussed. The first question on student interview #2 (See Appendix C) asked the students what they liked about reading time. Many students displayed enthusiasm in reading books and choosing vocabulary words. Among the answers, ten responses included students' comments about choosing vocabulary words: "I like the vocabulary and stuff;" "...we get to learn new words;" "That I get to learn stuff about what words are and....;" "We get to read words and find out what the meanings are if they're like really hard meanings;" "You get to find words that you don't know;" "I like Mondays when we do the fishies. I like that. Choosing vocabulary words." Among these responses, five students out of nineteen referred specifically to the fact that they get to choose words. Two students mentioned they like journals: "Um vocabulary and writing in the journals and reading. All of it." and "I like writing in my journals to you because I like telling my feelings and like all the ideas in my books and stuff like that." Finally, two students

responded that they liked the vocabulary tests: “The vocabulary test” and “I like the vocabulary test....because if you make a 100 my mom and I get real excited.”

Second, analysis of field note observations also revealed many instances of positive affective behavior. Many students displayed excitement when they received their test scores. After every test, as the researcher showed students their scores individually, at least three students would exclaim “Yes!” when they achieved a perfect score. Throughout the study, more students would display their excitement with a “Yes!” Students may have been reacting to other students and copying their expression or it may have become “popular” to score well on the tests. By the last test, six students displayed their excitement by exclaiming “Yes!” Earlier tests had as many as nine students that displayed their enthusiasm by exclaiming “Yes!”

Many students displayed excitement in their journals by expressing that they were anxious to participate or to choose words. While reading the class novel, a student wrote, “The reason I like *Skinnybones* because it’s got words to learn about.” Denise wrote in her journal quite often that she liked finding words-- “I like looking in the dictionary finding words.” She even suggested more group activities-- “I like working together with other people at my table. The end of every day will you give the whole class a chet (sheet) together?” Students wrote in reading journals about finding words. Rob noted in one journal entry that he found three good words--*calico, shoal*, and *discourage*. He then asked, “Do you think they are good words?” Abby wrote that she found three words. Adam wrote, “Guess what? I already have 2 vocabulary words from my book called..... I hope there are some more words I can find.” Tim wrote, “I found a vocabulary word. It’s

successful...” In another entry Tim wrote that he could not find any vocabulary words. Jim also expressed concern in his journal when he had not been able to find a word in a while.

Several students demonstrated enthusiasm by orally sharing with the researcher or with friends words they had selected. Joanne mentioned that she found another word for her ring--*undignified*. Jim was really excited when he found *envy* because he had “finally” found a word and wanted to share it. Adam commented, “I just found a vocabulary word!” Tim shared a word he selected--*orthodontist*. John really wanted to present his word--*glistened*. Rob mentioned on several occasions that he had selected a lot of good words. In addition, Rylee announced when she found a word--*unison*.

Other instances where students displayed motivation included the following examples. During one class period where students were working in groups to choose vocabulary words for the test, two groups were discussing their words. Denise bragged to Rylee’s group “We have *boisterous* and *humiliating.....”* Rylee retorted “so, we have *appetizing* and *sheepishly*.....” This example, also mentioned previously, demonstrated competition as well as pride taken in their words. On another occasion, Tim was excited about the vocabulary test and proudly displayed a study sheet he had written by hand. He said he had only missed two words while studying at home-- “Mrs. Pilgrim, quiz me.” While defining words one Tuesday, Bill raised his hand to define the word that was initially “his.” His word was *devoured*. However, he raised his hand long before the class got to the word and kept his hand raised, as he was anxious to define his word.

One day, Tim demonstrated his motivation to write in his journal. He said he was going to write an entire page. When the students were instructed to put their materials away, Tim said, "No, I have a lot more to write!" In another instance, the same student, Tim, inadvertently displayed his motivation. Adam, a student in Tim's group, had been absent the day before when groups had chosen words for the test. Adam was asked if he knew which words his group chose. He knew--he said Tim informed him. The fact that Tim had bothered to point this out to Adam revealed enthusiasm on Tim's part.

Several class activities conducted during reading time reflected enthusiasm. For example, when they drew pictures to go along with their words, students were excited about participating. They were also anxious to participate in the acting out of words. In addition, several students requested the slide board activity on occasion. Rob demonstrated his feelings about the tests at the end of the twelve week study when he stated, "I want more tests."

Vocabulary instruction and vocabulary knowledge. Finally, in answer to question 1, a major effect of the vocabulary instruction was on the vocabulary knowledge and vocabulary skills students gained. Vocabulary knowledge as it is used in this study encompasses students' abilities to generate definitions, students' abilities to use words correctly in oral and written contexts, students' abilities to recognize and understand words in their reading vocabularies, and students' abilities to learn words independently using acquired vocabulary skills. Vocabulary skills include using a dictionary and contextual and structural analysis to uncover word meanings. In addition, recognizing unfamiliar words, which is a part of independent word learning, is addressed during the

discussion of students' vocabulary knowledge. Leading up to the discussion of vocabulary skills is a brief look at students' backgrounds on vocabulary learning at the beginning of the study and at the end of the study as seen from student responses during interviews. Next is a discussion of data collected from field note observations relating to vocabulary skills students acquired that helped in the process of acquiring vocabulary knowledge, including the ability to learn words independently.

Student answers during interviews administered at the beginning of the study revealed that nine students had trouble explaining a "vocabulary word." An additional two students simply commented that vocabulary words were "long words." Vocabulary, or a vocabulary word, encompasses a number of concepts. As defined in the *Literacy Dictionary*, vocabulary can be "a list of words, as in a dictionary or glossary; those words known or used by a person or group; all the words of a language; or nonverbal forms of expression can be any word, including both words already in one's 'vocabulary' or new words to be added to one's 'vocabulary'" (Harris & Hodges, 1995, p. 274). Student responses to the question, "What is a vocabualry word?" proved interesting. Among student responses that seemed appropriate were: "The words you gotta learn in the dictionary;" "Stuff you don't know;" "Words like you don't know;" "Words, like, you look up;" "Words that you have to look em up;" "long words;" "They're words that are, uh, that tell you something like uh the definition;" "Things you look up;" "They're words we've studied in class;" "They're like long words that are used for sentences;" "They're, they're um words that you have learned and they're still in your memory know them and you know what they mean;" "Stuff you look up in the dictionary;" "They are words that

you can look up in the dictionary and learn something." Inappropriate answers students supplied include the following responses. Several students commented "I don't know" or gave no answer at all. Also, "They are, they're, they're words that uh my teacher has she has told me but sometimes I forget. I think I know, they are they're words that...(did not know);" "Words that are capitalized;" "You might think it's easy, somethings that easy;" "I know what they are but I really don't know what they are;" "Like, uh, I think *sob*, wait, *sob, hysterical*..." As can be seen, students provided vague answers and were often hesitant.

In addition, results from the first interview indicated that eight students could not provide an appropriate answer for the question, "What is a definition?" Most answers that were seemed appropriate contained references to the word's meaning or even a description of a word. For the most part, inappropriate answers included answers where students replied that they did not know or students did not attempt to answer. Finally, most of the students at the beginning of the study found the interview task of providing words they had learned in the past or that they had considered vocabulary words difficult and could not provide answers.

The second interview, administered at the conclusion of the study, reflected significant change in student knowledge of vocabulary terminology. All students provided appropriate responses to the question, "What is a vocabulary word?" They provided more explicit answers to the question as well. For example, some of the answers included the following: "Words that you write from your reading you don't know, right, and then when you go to find them then it's a new word that you automatically know and now it's

there with you for the rest of your life;" "It's something that you look up in the dictionary that you can't figure out;" "Words that we don't know and we study" (many students mentioned "words we don't know"); "They're words that you might not know but then you know them if you look them up in the dictionary;" "They're words that, that you don't know but then once you look them up in the dictionary and learn them you, in like a week, then you get 'em learned;" "Words you learn so you have a bigger vocabulary." All students with the exception of one knew the answer to "What is a definition?" Jack, the one student who missed the question gave no answer. Students were confident in their answers; they were specific and did not hesitate in providing answers to these questions. Student answers still reflected an emphasis on "vocabulary words" as words to be learned as opposed to words already in one's "vocabulary." This is most likely in part due to the researcher's emphasis on vocabulary instruction throughout the twelve week study. For example, the class chose "vocabulary words" to study each week. Therefore, student answers were reasonable and appropriate.

In addition, it was found that students were immediately able to provide vocabulary words, or favorite vocabulary words, when asked, "Tell me some of your favorite words that we've learned this year." Students also were successfully able to make sentences with the words they furnished. Some of the words provided include the following: *grief, bewildered, reclaimed, endearments, eager, ominous, devouring, dumbfounded, humiliated, glee, sophisticated, sabotage, disorderly, aroma, amused, absurd, scrupulous, triumphantly, boisterous, conniption, protégé, dumbfounded, optimistic*. In addition, five students liked *corpse*, two like *spectacular*, three like *reeked*,

three liked *loathe*, two liked *enthusiastic*, two like *ablaze*, and two like *immature*. One student said *devoted*, which was not a class vocabulary word. *Devoted* was a word she had on her vocabulary ring that she liked. John said "not *envy*" when asked about his favorite words. *Envy* was a class word that had initially been his, but as it turned out, it was not his favorite at all.

Each week students learned skills that contributed to their vocabulary knowledge so that they could discern unfamiliar words on their own in order to comprehend text. Two weeks of instruction were spent on context clues, two weeks of instruction were spent on learning about prefixes, and one week of instruction was spent on suffixes (the classroom teacher requested one week of instruction on suffixes). In addition, dictionary skills were constantly practiced. Data recorded from interviews revealed that students continued to rely on familiar resources, such as the dictionary, to define words. In the first student interview, students were asked, "How can you find out what a word means?" Twenty students answered that they would look it up in the dictionary. Additional answers included "sound it out," "ask a teacher or mom," and "to think and stuff about it." In the second interview, students were asked the same question. All students responded that they either use a dictionary or look it up as their initial answer. Many students expanded on their answers, though, and some students elaborated with prompting. Ten students referred to using context clues to figure out words' meanings. Only one student referred to the use of prefixes and suffixes. Results indicate students preferred to rely on dictionaries. It could be that students either did not remember to use

alternative methods to finding meanings or they did not make the connection that these skills were used to find word meanings.

Field note observations also support the notion that even though students were taught alternative methods of defining and understanding words, they continued to rely on dictionaries the most. Data from field note observations reveal that the use of context clues was the other predominate skill that students used and remembered consistently. According to Nagy, (1988), two widely used methods of helping students learn to deal with unfamiliar words on their own are context and structural analysis. “There is no doubt that skilled word learners use context and their knowledge of prefixes, roots, and suffixes to deal effectively with new words” (p. 38). Data from field notes relating to student knowledge of context clues, prefixes and suffixes, and dictionary skills were analyzed qualitatively.

According to Kuhn and Stahl (1998), one approach for helping children increase their store of word meanings is to teach them the efficient use of context clues (or cues) in text. The class received two weeks of instruction on using context clues to uncover word meanings. Material used correlated with material used for fourth grade instruction in preparation for the state test given each year (TAAS or Texas Assessment of Academic Skills). Instruction involved the teaching of six “clues” or “rules” that students could use to help them when they encountered an unfamiliar word. Carnine, Kameenui, and Coyle (1984) found that teaching a “rule” about examining context for clues to meanings of unknown words and providing practice applying the rule improved students’ abilities to use context. The six clues were modified from fourth grade TAAS materials. The clues

were as follows: look for a clue after the word “or”; look for a clue after a comma behind the word; look for a clue before the words “called,” “is,” or “was”; look for a clue in the sentence before the word; look for a clue in the sentence after the word; and use the fill-in-the-blank method to figure out a word. Examples for each of these clues are included in Appendix F. In addition, students were taught that using the clues/rules does not always work. Nagy (1988) concurs that “contexts often give only partial, if not misleading, clues to the meaning of a new word.” He warns that teachers should be aware, and make their students aware, of the limitations of the method of context analysis. One lesson in using context required students to use social studies textbooks to look at highlighted words and to read or to try and define them in context. Another lesson required students to complete a worksheet in which they uncovered the meanings of vocabulary words using context clues. Students learned the six rules and seemed to demonstrate understanding about how to use context clues through their performance on assignments, through one-on-one interactions, and class discussions.

Student use of context clues was encouraged and observed after the two weeks of instruction through one-on-one interactions between the researcher and students. For example, while working with Bill, the researcher noted that he was about to encounter the word *devour.* In an effort to encourage Bill to notice new words, the researcher commented, “Wow--let me know when you get to that word. I want to see if you can figure it out.” After he had read the word he said that he thought it meant “used.” The researcher had him read the word in context once more and showed him a clue about the wrapper in the trash can in a previous sentence. He then answered “Eat!” After a

vocabulary test, the students were asked about a word on the test--*grief*. The researcher asked if there were context clues that helped in answering the question. Rob replied that he knew the answer because in the sentence he had read that a dog died. Tim showed the researcher *quivering* in the book he was reading, and he tried to figure it out using context clues. He could not uncover the meaning.

Morphemic analysis is a word identification strategy that helps students determine or infer word meanings by examining their meaningful parts, such as prefixes and suffixes (Baumann & Kameenui, 1991). According to Baumann and Kameenui, "the rationale that underlies instruction in morphemic analysis is that if students can be taught basic and recurring free and bound morphemes, knowledge of many semantically related words can be acquired" (p. 622). Students in this study received instruction on both prefixes and suffixes. According to Graves (1992), prefixes have clear lexical meanings which are attached to the base in a straightforward way (as opposed to suffixes). He suggests that prefixes are relatively easy for students to recognize and can be a powerful aid in learning vocabulary. According to Graves, it seems reasonable to teach fourth graders some of the most used prefixes.

Students in the study received two weeks of instruction about prefixes. During the two weeks spent on prefixes, students encountered the prefixes *un-, dis-, re-, im-, ir-, il-, im-, in-, pro-, pre-, post-*, and *anti-*. They practiced the lexical meanings as well as examples of affixed words. Unfortunately, although *pro-* and *post-* were included in the fourth grade curriculum materials, they were not among the most frequently used prefixes listed by Graves (1992). During mini-lessons, more students preferred to volunteer

examples of words with prefixes than the meanings of the prefixes. Students had few problems identifying or providing words with prefixes. The researcher observed during classroom discussions and mini-lessons that the students could use prefixes to discover word meanings. However, it could not be determined whether or not this skill was transferred to their ability to discover word meanings on their own while reading. Some problems were encountered when students provided examples of words with prefixes. During one lesson on prefixes, *understand*, *respect*, and *resign* were provided as words with prefixes. The students saw the *un-* and *re-* at the beginning of the words. However, they did not look at the base word to see if it was a word that could make sense on its own. Students were instructed, for example, that "derstand" is not a base word and that even when the beginning letters look like prefixes, they may not be. Graves (1992) identifies this misconception as a problem with basic knowledge about prefixes.

Graves (1992) addresses another problem presented by prefixes: some prefixes have more than one meaning. Many prefixes have similar meanings but are used differently. Students had some trouble knowing when to use certain prefixes. The students completed a practice sheet where students confused *displeased* with *unpleased*. On the practice sheet the classroom teacher used as a grade, two students failed with scores below a 70. The two students who failed did so due to their confusion with the practice sheet's instructions.

Graves (1992) submits that "most suffixes have grammatical meanings that are tacitly understood by students or abstract meanings that are very difficult to teach" (p. 118). However, he recommends teaching suffixes beginning in grade four, beginning with

the most frequent suffixes. Students received only one week of instruction on suffixes because the classroom teacher wanted to move onto another skill. During the week, students learned the suffixes *-er, -or, -ly, -ful, -less,* and *-able*, six of the most common suffixes (Graves, 1992). Suffixes seemed easier for the students. They already knew some suffixes before the first lesson was conducted. Students were familiar with suffixes such as *-ing, -ed, -s-,* and *-es*. Field notes reflected no problems with students finding words with suffixes.

Many of the words students selected as vocabulary words for the test contained prefixes or suffixes. Therefore, prefixes and suffixes continued to be discussed when defining words or reviewing the study sheets. Each time the class studied a word with a prefix or a suffix, the base word was either underlined or handwritten on the study sheet. In addition, the class practiced the various forms of the word--with or without the prefix/suffix. Field note observations reflect that students attended to base words, prefixes, and suffixes. For example, Adam found a vocabulary word while reading. He first wrote the word, *quipped*, on a piece of scratch paper. He then looked up the word in the dictionary. The dictionary had just the base word, *quip*, so on his vocabulary ring, he wrote *quip*. During group collaboration during word selection, one group of students wrote the base word above the sentence they developed for the study sheet. While providing sentences with vocabulary words, students often used the word with or without its prefix. For example, many students could make sentences interchanging the words *scrupulous* or *scrupulously*. Many students could make sentences interchanging the words *modest* or *modestly*. However, students made mistakes with usage as well. For example,

Rob's sentence with *frantically* was incorrect. "The man was *frantically* when he got married." Rachel corrected him and told him he should say "*frantic*." Students realized from discussions about the test that they could be assessed on any form of the word. The researcher often manipulated affixes on vocabulary words for the weekly test.

Students constantly relied on dictionary definitions to define words. Because dictionaries were used frequently, students had to learn how to use a dictionary efficiently. According to Nagy (1988), definitional methods of instruction can cause problems. One problem with dictionary definitions is that "many definitions simply are not good" (Nagy 1988, p. 5). In addition, many of the content words within definitions are not likely to be familiar to the students. Students encountered problems with dictionary definitions and through repeated exposure to defining words often overcame the problem. Not only did students learn to provide their own definitions from the dictionary definition, they learned to look up alternative words when necessary. Instances demonstrating student progress with dictionary skills are described below.

According to the classroom teacher, students began the school year with weak dictionary skills. They received some instruction on using the dictionary during the first two weeks of the study. Throughout the study, students received a great deal of practice looking up words in the dictionary. Basic instruction included finding words using the alphabetical organization of the dictionary. Many students struggled with the assignment of finding words and asked for help and some students took up to thirty minutes to find three assigned words. The researcher noted through observations that student dictionary skills improved significantly as the study progressed.

Modeling played an important role in defining the words using the dictionary. During Phase One of the study, when the class read *Skinnybones* (Park, 1982), the process of choosing vocabulary words for the vocabulary rings began. Upon choosing a word for their vocabulary rings, the class together defined the word using context clues and the dictionary. If students were able to discern the word using context, a dictionary was still used to help compose a definition. Dictionary definitions were often simplified. For example, the long dictionary definition for *indignant* was shortened to "angry because of something unfair." The dictionary definition for *instance* was "example." Students learned to look up base words through modeling. For the vocabulary word *immature*, the class looked up *mature* and modified the dictionary definition to "childish." The dictionary definition for *smirk* was "to smile in a smug or conceited way." The class looked up *smug* in order to understand the dictionary definition. The definition for *smug* was "to be pleased with yourself" so the definition created for *smirk* was to "smile because you're pleased with yourself." When the word had several different meanings listed, the class used the meaning that matched the context within which the word was found.

During Phase Two and Phase Three of the study, each student used a dictionary as needed when he or she encountered unfamiliar words to add to his or her vocabulary ring. Student use of dictionaries was observed daily. Some students, such as Joanne and Rob, referred to dictionaries a great deal more than other students. Many students asked for help with words. Jim and Abby often needed help finding words in the dictionary. Other students needed help defining words using the dictionary. Even though some students

asked for help, behaviors demonstrated that students were learning a great deal about dictionary skills. For example, Kent got out a dictionary and raised his hand for help with the word *sympathetic*. He pointed out the word in the dictionary and read the definition. The definition contained the word *sympathy* and he knew to then look for the word sympathy. When he started to read the definition of *sympathy*, he realized that he had mistakenly been reading the definition for *symphony*. Upon reading the correct definition, "feeling sorry for his suffering," he decided, with some help, to simplify the definition to "feeling sorry for someone." Denise asked the classroom teacher for help with the word *anxiously*. The teacher reminded her about the -ly on *anxiously* because she needed to look for the word *anxious*. Later that same hour, Denise was confused about the two dictionary definitions of *execute*-- "to put to death" and "to carry out." Her book used the word in relation to the first definition.

Betty often asked for assistance defining words. For example, she could not find *sternly* in the dictionary and needed help. In addition, she could not understand the dictionary definition of *occupy*. The dictionary had several definitions and she had not read through them far enough. Together with the researcher, Betty created the definition "to live in, fill, or occupy." When she asked for help on *scornful*, the researcher asked where she should look. She answered that she should look up *scorn*. Betty also raised her hand when she was defining *abruptly* because she didn't think the definition she found matched the way *abruptly* was used in the book. Her definition was found to be correct. Lilly also displayed concern about a word. She wrote in her journal that she had found a word--*halt*. "I know it means "stop" but the sentence it was in stop wouldn't make sense.

So I looked it up in the dictionary. It means 'to be unsure, to hesitate.'" In this example, Lilly knew one definition of *halt*, but encountered the word used in a different context. She was able to use the dictionary to learn the new meaning. Many students were confident in their dictionary skills. Rob was confident enough in his dictionary skills that when he could not find *ornery* in the dictionary, he asked if it were a word.

One concern with students selecting their own words and writing the words in their rings was that the emphasis on finding vocabulary words would affect comprehension, due to interruptions during reading. On some occasions, students chose more words in one setting than they could define. Rob wrote to me one day that he "didn't read much today. I found three words...." In cases such as Rob's, it could be inferred that either the student did not comprehend much or did not read much because he or she was too concerned with finding vocabulary words. Such cases were rare in this study. Most students selected about one word a day and continued reading. Students were occasionally warned against spending too much time selecting words. Beck and McKeown (1983) propose that even if students identify an unknown word, "it seems that only highly motivated students will choose to interrupt their reading to check on its meaning" (p. 180). Not only did students interrupt their reading to identify unknown words, it was noted from observations during one-on-one encounters with students that word selection did not seem to interfere with reading comprehension.

Each Tuesday, the class defined the vocabulary words on the study sheet. Most of the time, a student from the group that selected the vocabulary word volunteered to define their word. Therefore, there were few instances were someone failed to define a word.

Most students recited the definition by memory even though up to that point in time they had received limited exposure to the word. After a word was defined by a student, the class spent additional time with the word to ensure understanding of the term. The word was often compared to similar words (synonyms) or used in several example sentences. The discussions that occurred as a result of these activities were meaningful not only for students' acquisition of vocabulary knowledge, but meaningful to the researcher. A presentation of the rich data collected during these conversations follows.

Students gained a great deal of vocabulary knowledge during the defining of words. Sometimes students learned through error. On one occasion, Anna volunteered to define *occurred*. She stated, "to come to mind." This definition did not agree with the way the word was used in the group's sentence. The class read the sentence containing the word *occurred*. Everyone exclaimed "happened" when we got to that part of the sentence. The class added both definitions to the study sheet. For the word *smirked*, the class wrote "to smile in a silly manner." During further conversation, the class discussed how *smirked* is often used when someone is being sarcastic or a smart aleck. The researcher referred to a dictionary while the class defined words and often modeled by comparing the students' definitions to the dictionary's definitions. For example, Rylee defined *protested* as "to argue." The dictionary was used to elaborate on student definitions. Several examples of *protested* were provided including when one "protests homework" or "protests cleaning your room." The word *protested* was compared to an *objection*, as in a lawyer objecting in a courtroom. The researcher noted that students

remembered this analogy when during the next day's drawing assignment, two students drew a courtroom scene to describe the word *protest*.

Word definitions often needed modifications or simplifying to enable student understanding of the definition. These modifications occurred during class discussion. While the class was defining words on a study sheet, Joanne defined *sophisticated* as "smart." However, the word needed more description to be considered accurate. One definition the dictionary provided was "having worldly knowledge." Rylee said "to be mature." The class combined both the dictionary definition and the student definition to create "mature; knowledgeable," which is the definition students added to their study sheet. Mary defined *admire* as "to like someone." The researcher commented that you would "look up to" someone that you *admire*. The class eventually wrote "to think highly of someone." Denise defined *glistened* as "sparkle." Kent added "or to reflect." The class's final definition was "to sparkle or reflect." Rylee commented that the dictionary had a bad definition for *unison*. She cited her own definition by memory. She said it meant "together or at the same time." When asked how she obtained that definition, she answered that she figured it out from what the book said. She then proceeded to explain how the word was used in her book.

The class used knowledge of base words to define *apologetically*, which initially seemed to be a hard word for the students. They were prompted to provide a definition for *apologize*. "When you *apologize*, you say you're....." The class answered "sorry." Further elaboration included discussion of how the *-ly* at the end of a word often identifies adverbs, so if you do something *apologetically*, that answers how you do it (students had

studied adverbs with their classroom teacher). The class definition for *apologetically* became "to feel sorry for something."

Adam defined *quipped* as "a clever remark," which class members wrote on their individual study sheets. The researcher provided further insight into the word: "I could say 'she sure isn't smart, said Emily,' but that would be boring. 'She sure isn't smart, *quipped* Emily' is a much more elaborate sentence. Writers and authors use these words you've been finding to elaborate." Mary defined *rummaged* for the class, even though it was not her word. She used the sentence on the study sheet to uncover the word's meaning (context clues). The definition for *rummaged* that the class added to the study sheet was "to look through by turning stuff over in a *disorderly* manner." The class had studied the word *disorderly* during the previous week, so they liked using the word in the definition. Similar class discussions took place throughout the study, providing students with even more knowledge about vocabulary words.

Group discussions also provided rich data about students' vocabulary knowledge. On Mondays, small groups selected words for Friday's test. Student participation in conversations often supplied information about challenges they faced while learning to use and understand vocabulary words. Students learned from one another and from the researcher/teacher. Analysis of group discussions also demonstrated the important role an instructor plays in group discussions of vocabulary words. Group discussions were difficult to observe because of the numerous student conversations occurring simultaneously. The researcher moved from one group to another listening to

conversations, answering questions, and offering assistance. A few examples of group conversations follow.

One group selected the word *reluctantly*. The group was working on a sentence, but kept using *reluctantly* incorrectly. Kory made a sentence with *reluctant*-- "He was *reluctant* to share." The researcher persuaded the group to use Kory's use of *reluctant* instead of *reluctantly*. Similarly, Bill's group had more success making a sentence with *indignant* than with *indignantly*. Another group considered *blatantly*. When asked if they could think of a sentence with the word, no one in the group could reply. Instead, they began suggesting alternate words. Then Mike asked someone to read the definition of *blatantly*. Rob answered that it meant "impossible to overlook." Mike did not understand the definition and asked for further information. Rob did not reply. The group eventually selected *insane* instead of *blatantly*. They were able to make a correct sentence with *insane*.

Groups often experienced trouble creating sentences with their words. Rob's group had some trouble making a sentence with *nuisance*. Someone suggested, "Rob was *nuisance* when he saved his goldfish from a parrot." The researcher discussed how *nuisance* should be used as a noun. The researcher provided some examples. Rob disagreed with some of the examples at first because his definition was "offends," which did not describe the word appropriately. After some discussion, he finally grasped the meaning of the word. The group changed the sentence to "Rob was a *nuisance* when he called people names." Shelly told her group, "Can we do *daintily*? I know the meaning." Her group was hesitant, but decided to use her word as one of their choices. Their

sentence, however, was initially incorrect-- "The little boy thought the girl was *daintily*." The researcher and the group discussed the error and changed the sentence to "The little boy thought the girl was *dainty*."

On a few occasions, students turned in sentences that had errors or could be potentially confusing for the class. The researcher changed some sentences before typing the study sheet. For example, one sentence was changed from "The police have authority to arrest" to "The police have the authority to arrest people." The researcher tried to make minor changes if possible because students took pride in their work and noticed the changes. Sometimes, however, sentences required significant revision. One group wrote, "Chris was held *captive* when he was driving down the road 180 miles per hour in his Cobra." The researcher thought the sentence needed clarity and changed the sentence to "Chris was held *captive* by the kidnappers."

Groups learned to consider class familiarity with candidates for word selection. On occasion, the researcher modeled how to choose unfamiliar words. For example, one group selected *mistreated* and *glanced*. The researcher asked if they already knew those words. They claimed they did not. Someone in Rylee's group suggested *century*, but Rylee disapproved, stating that everyone probably already knew that word. On one particular Monday, Tim's group had trouble agreeing on words. They initially chose *sensational* and *discover.* They were writing their sentences when the researcher asked them about the word *discover*. Shelly commented, "I didn't want that word." Upon further discussion, they agreed that everyone in the class would already know *discover*. Mike then shared *forbidden*, which was selected instead.

Students working in groups often referred to their novels to remember how words were used. One group that selected *grief* and *heed* as vocabulary words needed more than Mike's definition of *heed* in order to make a sentence. The group and the researcher attempted to read how the word was used in Mike's book, but he had failed to write a page number on his vocabulary ring (students were asked to write the page number of where they found their vocabulary word in their vocabulary ring). The group found a sample sentence with *heed* in the dictionary and used it as a guide when they wrote their sentence.

Often, groups would have just a few words from which to choose due to lack of student participation. In such cases, the researcher often observed students doing last minute defining during the groups' selection time. For example, one group of students made up of Denise, John, Jim, and Bill were having a difficult time choosing words. Bill and John both had undefined words in their vocabulary rings. Bill got a dictionary and looked up *astonishing* while John looked up *socialize*. Jim had *regalia* in his vocabulary ring, and Tim and Denise both had s*mirked* (from different books). The group finally, with some assistance, selected *smirked* and *astonished*.

As can be seen, the teacher plays a powerful role in the facilitation of vocabulary learning. Teacher modeling occurred daily throughout the study. Graves (2000) states that "one good starting point in encouraging and nurturing word consciousness lies in teachers' attitudes towards words and the attitude they project to the students" (p. 128). According to Graves, if teachers want students to strive for the skillful use of words in speech and writing, they want them to see that they care about words and how they use

them. Therefore, it is reasonable that teachers deliberately use, and when necessary explain, words that students might not know. The researcher's role in the study included deliberate modeling of word usage during whole class discussion as well as in one-on-one situations. One example of researcher modeling during whole class discussion occurred when the heater came on for the first time. The heater had an odor when it turned on. Students noticed the smell and became excited. The researcher said, "It does *reek*, but calm down!" The researcher modeled during one-on-one situations to help students understand a word or simply to model usage. One instance where the teacher used a word to aid student understanding was when Betty pointed out *hoarse* in her vocabulary ring. She was trying to understand the definition, so the researcher commented "kind of like the other day when I had a *hoarse* throat and it was hard for me to talk." Betty seemed to grasp the meaning. The researcher modeled usage to individual students orally as well as in journal responses. When the researcher wrote to students, vocabulary words were used in a few instances. For example, when writing to Judy, the researcher incorporated the vocabulary word *immature* into the response.

Graves (2000) also recommends recognizing and praising children's own speech and writing when they use vocabulary words. The researcher avoided praise in response to student speech and writing due to the influence it may have had on research results; however, using vocabulary words in speech and writing was addressed in class conversations. On two occasions during mini-lessons, the researcher asked students about the importance of vocabulary. Students responded in various ways. On one occasion students were asked why vocabulary learning was important and relevant to them. Kory

answered, “For when we read.” Another student replied, “When we listen to someone talk.” After many responses and some prompting from the researcher, a student finally responded that we use vocabulary when we write and talk. On another occasion, Rylee said that we learn vocabulary so that when we are talking to someone who is in college (or something) or getting a job, they could understand the person. These discussions provided students with examples of the importance of learning vocabulary. In addition, students need to “know why” they are learning certain words and how and why those words are important to their literature selections (Dole, Sloan, & Trathen, 1995).

One final aspect vocabulary knowledge to be discussed is student recognition of unfamiliar words. Kuhn and Stahl (1998) report that “in the more incidental learning of word meanings during free reading, readers are often unaware that they do not know certain words in the text, and thus they do not apply special attention to those words” (p. 132). In this study, specific attention was given to recognizing unfamiliar words. Observations from field notes describing student encounters with unfamiliar words are described below.

Students initially encountered some problems in recognizing unknown words, particularly during Phase One of the study. Many students assumed that when they could not pronounce a word, that they did not know the word. However, there were many instances where upon hearing the word, the student realized he or she already knew it. For example, *aisle* was pronounced for a student who then realized she already knew the word. Mike wanted help pronouncing *unconsciously*--he also already knew the word. Tim asked how to pronounce *embarrassed*. As it turned out, he knew the word. Abby asked

how to pronounce *squirmed* and *immediately*. When she heard the word *immediately* she said, “Oh, it’s clicking now.” If students still did not recognize the word after it was pronounced, they would usually add the word to their vocabulary ring. Taylor asked how to pronounce *firmly*. When he heard the word, he asked if that were a vocabulary word. The researcher answered that if he didn’t know it, it could be a vocabulary word. Some students forgot the pronunciation even after hearing the word. It became a part of class instruction to practice pronouncing the words on the study sheet.

Students encountered one other problem while attending to unfamiliar words. They initially considered unfamiliar proper nouns, nonsense words, or even abbreviations to be vocabulary words. For example, during Phase One of the study, Joanne suggested *Frankovich* as a word for the vocabulary rings. *Frankovich* was the character’s last name in *Skinnybones* (Park, 1982). She thought that because she was unfamiliar with the word, that it was a vocabulary word. Other students made the same mistake. Another suggestion for the vocabulary rings was *Dustbuster*. The researcher tried to explain that the word was the name of a product. One student raised his hand because he could not find a word he had chosen from *Skinnybones*--*schmecord*--in the dictionary. The researcher explained that the main character was making rhymes when he said, “record, *schmecord*.” One student tried choosing *Booga* from the same book for a vocabulary word. *Booga* was a nonsense word the main character shouted to scare someone. Cameron tried to choose *ump* for a vocabulary word. He was told that *ump* was short for *umpire*. During Phase Two and Three of the study, there were additional instances where students chose proper nouns for words. However, the researcher observed that the instances occurred less often

than before. Joanne had written *Mohair* in her vocabulary ring and said, "I'm not going to be able to find this am I?" Rob presented an Indian's name he wanted to write down for a vocabulary word. Mary had *Presbyterian* in her ring. And finally, in one other instance, Abby tried looking up *Poochie* (a dog's name) in the dictionary.

Phase One and Phase Two of the study were times for helping students attend to unknown words and for modeling. Students received assistance on a one-on-one basis. Some students had no problems finding words whereas other students neglected choosing words and needed more encouragement. For example, Kent came across *forbidden* and was asked what he thought the word meant. He could not answer, so it was suggested "That might be a good word for your vocabulary ring." Shelly couldn't pronounce *enthusiastically* from her reading and she couldn't explain what it meant. She also received encouragement to write the word in her vocabulary ring. Jim thought that *hesitantly* in his book meant "to say in a loud voice." He was persuaded to write the word in his ring. Many students who did not attend to unfamiliar words at the beginning of the study began to notice the words and add them to their vocabulary rings. When reading with the researcher, Abby encountered the word *absurdly* and exclaimed, "I'm going to write that word down!" Bill and Denise rarely added words to their rings during Phase One of the study, but both students became extremely involved by Phase Three of the study. By Phase Three, students were expected to work independently to select vocabulary words.

In summary, evidence from vocabulary tests and field notes demonstrated that vocabulary instruction had positive effects on students' performance on vocabulary tests,

on students' motivation to learn vocabulary words, and on students' overall vocabulary knowledge. In addition, analysis of qualitative data showed that several factors influence students' vocabulary achievement, including the following: test design, which caused confusion in some test situations; self-selected vocabulary words, which resulted in difficult vocabulary words; and, exposure to vocabulary words, including exposure at home or at school, which provided students varied experiences learning definitions and using words.

Results that Answer Questions 1a and 1c

Do students use vocabulary knowledge gained as they read their books? Do students attend to their words in the environment? In analyzing data and reviewing results, it was decided that data collected relating to these two questions overlapped. As will be seen below, evidence exists that students attended to words as they read their books. In order to answer these questions, receptive vocabulary will be addressed as well as how it can and cannot be measured. Then the effects of instruction that impacted reading vocabulary are described.

This study was designed to look at receptive vocabulary knowledge through observations made during students' reading time. Reading vocabulary refers to one of four different vocabularies that Baumann and Kameenui (1991) discuss as the degrees of knowing a word. A student's reading vocabulary is thought of as part of the receptive vocabulary. Receptive vocabulary, which also includes a student's listening vocabulary, requires the reader or listener to associate a specific meaning with a given label as in reading or listening (Baumann & Kameenui, 1991, p. 606). However, it is difficult to

measure students' reading vocabulary. In this case, the researcher observed students while they read and read one-on-one with them. As the study progressed the researcher noticed one way students demonstrated their knowledge of reading vocabulary. The students began showing the researcher vocabulary words as they encountered them in their reading material. As the researcher recorded these observations, it became clear that in doing this, students were also attending to words in their environment (Question 1c).

For the first three weeks of the study, the class read a novel together. Modeling occurred, but during Phase One, little was discovered about student reading vocabulary. By week four students began reading their own books and choosing their own words. After the first vocabulary test, students began attending to words previously learned as they read. They began to point the words out. The students were not asked to do this. For example, in one day, Mike noted *glanced* in his book, for which he knew the definition. Rob showed the researcher *bewildered* in his book. Judy found *indignant* in her book, and Jim pointed out *reluctantly*. It seemed on this particular day that once the first student showed the researcher a word, the others followed his example. The students seemed very enthusiastic to exhibit words they found in their books. There were thirty-one incidences where students showed the researcher their words during silent reading time. Several other examples of students attending to words emerged during data analysis. Joanne found *forbidding* in her book. She recognized a different form of the word than exhibited on the study sheet--the study sheet contained *forbidden*. Mary found *sheepishly* and *reluctantly* in her book--on the same page. Jim raised his hand and pointed out *enthusiastically*. He later found it again as well as *grief*. Jim said aloud, "I found

sophisticated." Jack read the first page of his book and said, "Look, this is one of our words!" He referred to *shivering*, a word his group chose this week. When asked what it meant and he said "to shake." Lilly found her group's word--*modesty*--while reading. She and Joanne were both pointing to it when the researcher walked by. Groups appeared to take pride in their words. Tim, while students were reading silently, said "I found *quivering*--to shake." Later that hour he pointed out *swift.*

As behaviors occurred repeatedly, it became necessary to focus on more than just whether or not students attended to the words. The researcher began to ask further questions on the contact summary sheet (Appendix G) in preparation for classroom visits. For example, could the students pronounce the words they were pointing out? Could the students provide definitions for these words or were the word meanings still unknown? The researcher began recording these observations in the field notes. According to data collected in field notes, students who attended to the words could not only pronounce them, they also knew their meanings.

In addition to attending to words as they read, students showed their classroom teacher their words when the researcher was not present. They also showed other students their words. Students also mistakenly identified words they thought were on the vocabulary list. Tim confused words on a few occasions. For example, one day Tim pointed out *shimmied*, thinking it was *shimmered*. Another time he got excited when he thought *crops* was *corpse*.

Students sometimes failed to attend to words. Although difficult to observe, these instances were recorded in field notes. For example, even though it was a word on one of

the vocabulary tests, Tim could not even pronounce or recognize *aroma* as he read aloud. As Jack read aloud, he encountered *droopy* in his book and did not attend to it. However, just because he did not mention it aloud does not mean he did not recognize the word. The same applies to Shelly when she came across *unison* and did not attend to it. It was more obvious that John had not recognized *enthusiastic*. He wrote *enthusiasm* in his ring one day even though we had already had *enthusiastic* on the test.

In summary, students did use vocabulary knowledge gained as they read their books and students did attend to vocabulary words in their environment, including their print environment. Students recognized and pointed out vocabulary words in their books and other print sources.

Results that Answer Question 1b

. Do students use vocabulary knowledge gained as they write in their reading journals or in their writing samples? In order to answer this question, reading journals and writing samples from which notes were taken are described. Then data that yielded information about student vocabulary knowledge is described.

In discussing the degrees of knowing a word, Baumann and Kameenui (1991) address writing vocabulary when they describe expressive vocabulary. Expressive vocabulary requires the speaker or the writer to produce a specific label for a particular meaning. In order for a word to be used in expressive vocabulary, the word must be adequately learned or acquired, retained in memory, and retrieved in common expression. In other words the student must "know" a word to express it correctly (p. 606). Question

1b refers to writing vocabulary because it asks if students use vocabulary knowledge gained as they write in their reading journals or in their writing samples.

Reading journals consisted of spiral notebooks in which students wrote on a regular basis to converse with the researcher about their books. At the end of reading class, if time permitted, students were given approximately ten minutes to write about the reading they did that day. Rosenblatt (1978) refers to this as reader response. Over time, through modeling and discussion, students learned how to write in their journals. They were encouraged to describe events in their books (efferent responses) as well as to tell their opinions of the events in their books (aesthetic responses). The students had time to write in their journals about three times a week. The researcher replied to each student approximately twice a week. While participating as a reading teacher in the class, the researcher worked to establish an environment of trust. The journals helped establish this trust through constant literary communication. Many students opened up to the researcher and responded aesthetically, asked questions of the researcher, and shared personal information. Pertinent to research question 1c, students wrote freely, and their writing often included correct usage of their vocabulary words.

Students were never instructed to use their vocabulary words in journal entries, yet they repeatedly used their words as they wrote about their books. Baumann and Kameenui (1991) report that in order for a word to be used in expressive vocabulary, such as in a written journal entry, the word must be adequately learned or acquired. Therefore, student use of vocabulary words in journal entries indicate that students learned or acquired the words.

There were 23 instances found in journals where students used their vocabulary words as they wrote to the researcher. A few words were seen repeatedly. *Reek* and *insane* were more popular than others and were used by more than one student. In the examples that follow, the vocabulary words used are in italics. Lilly wrote, "Alex *reeks*...." Anna used *reek* as well: "TJ tells everyone to come to the game because Alex *reaks* (reeks) at baseball." As can be seen in journal entries, the vocabulary words were not always spelled correctly. However, Baumann and Kameenui (1991) do not include spelling a word correctly as criteria for "knowing" a vocabulary word. Jim and Mary both used *insane* when they wrote in their journals after reader about Mr. Peoples in *Skinnybones* (Park, 1982). Jim wrote, "It was also funny when he was *insane*." Mary wrote, "Mr. People's was *insane*, totally *insane*." Students did not use the vocabulary words exactly as they had been used in the books, so it is assumed they were not copying sentences straight out of the book. However, the experience gained from the book they read may have influenced what the students wrote in their journals.

Other instances involving vocabulary words used in journals include a variety of words learned throughout the twelve weeks of instruction. Some of the sentences from the journals are taken out of the context in which the students wrote them, but it is fairly obvious whether or not students used the words correctly. Joanne used vocabulary words on four different occasions in her journal. She used *sabotaged, envious, frantically, and glanced***.** She used the words correctly. For example, she wrote "It could be that Mr. Decie or that *envious* guy that is always rood (rude)." Upon reading this sentence, it is unclear whether or not she understands the meaning of *envious*. However, later in the

same entry she added, "...he is very *envious* and selfish." In yet another sentence, Joanne demonstrated knowledge of a vocabulary word when she wrote, "then she *glanced* over her shoulder and saw her mom."

Betty used vocabulary words on two different occasions. She wrote "Calvin felt *grief* when the baby bird died" and "I am *eager* to read this book." Anna also used vocabulary words on two different occasions. She used the sentence mentioned above with *reeked* as well as the following sentence: "Brenda died by a dress that a *corpes* (*corpse*) wore at a funeral." Mary used vocabulary words on two occasions. In addition to the previous sentence with *insane*, Mary wrote, "They all had *sensational* names."

A few other examples from the journals include the following: Shelly wrote, "the rest of them are really *anxious* to know." Rylee wrote that her book was mostly about "Jessica and their *obnoxious* brother Steve." Finally, Adam wrote, "Ben and Jake were *rummaging* through Ben's dad's garage." One sentence used by Lilly in her journal was difficult to understand. She wrote "Alex *indignantly* went to the pitching contest." The sentence seems to reflect appropriate understanding of the word, yet it is uncertain.

Ms. Jones provided the writing samples that students completed outside of reading time. These samples had been agreed upon before the study began. It was agreed that Mrs. Jones would provide writing samples from the students' writing class. These samples would also be included in the class writing portfolios. During the study, the students completed three pieces of writing (not "published" work) that were later read by researcher. The first piece was a descriptive paper where students described their day. This piece of writing was very dry and yielded no instances where student used class

vocabulary words. The second piece of writing was a narrative story written to practice for a state wide writing assessment. This piece of writing yielded important information about students' writing vocabularies. The third piece of writing was a compare/contrast paper where students described their likes/dislikes about school. This paper provided interesting data as well. Ms. Jones confirmed that she did not instruct students to use vocabulary words. They were, however, asked to use elaboration. The fact that students did not use new vocabulary words in their first writing sample but did use new vocabulary words in their second and third writing samples could be an important observation. Students had just begun to learn new words when they wrote the descriptive paper. Students experimented with new vocabulary words as the study progressed and as they received exposure to new words.

The researcher noted a total of eight vocabulary words used by students in the writing samples. Once again, the vocabulary words used by the students are italicized below. Rylee's writing accounted for three of the words used while Adam's writing accounted for two of the words. Rylee wrote, "*Unfortunately* Anna was more fit than I was;" "You have a huge *craving* for food;" and "What's wrong we both said in *unison*?" *Unison* was a word that Rylee had found in her book, had written in her vocabulary ring, and had later been chosen for the test. The fact that *unison* was her word may have affected her interest in the word. Adam wrote, "What are you guys doing she said in a *boisterous* voice?" and "What is that thing she said in a *panicky* voice?" He used his vocabulary words as adverbs, which as explained previously, demonstrates that he could use the words several different ways. When we initially studied these words, they were

not typed as adverbs on the study sheet--our study sheet contained *boisterous* and *panicked*. Although we used the words in many sentences as we studied, *boisterous* was most often used as an adjective and *panicked* most often used as a verb.

Other instances where students displayed their knowledge of vocabulary through the expressive use of vocabulary in student writing samples included the following. Kent wrote, "Then it *occurred* to me..." Jim wrote, "Soon my friend was standing in front of the doorway and was not as *enthusiastic* as I was." Jim also wrote "Also you get to have a *enthusiastic* time with them."

In summary, evidence from qualitative data demonstrated that students used vocabulary knowledge gained as they wrote in their reading journals and in their writing samples. Twenty-three instances were noted where students used vocabulary words in their reading journals and eight instances were found where students used vocabulary words in writing samples.

Although not a part of the initial research question, the researcher noted instances where students used vocabulary words in their verbal expressions. The researcher recorded thirteen instances where students used their words in verbal expression. However, it must be remembered that the researcher had limited exposure to the students from which to record oral vocabulary usage. This limitation also holds true for student use of vocabulary in writing samples because the researcher could not possibly observe all of the writing students compose in school.

Verbal use of vocabulary words occurred in many different contexts. For example, one student used a word when we were devising a Table of Contents for *Skinnybones*

(Park, 1982). Another student suggested the class title chapter one "Fluffy *Hurls*." In another instance, while in a one-on-one setting, John asked the researcher how to pronounce *gazed*. Upon being told and then reading the sentence, he said, "like *glanced*." *Glanced* had been one of the words in the past. He used the word verbally, yet not in a sentence. John was able to compare the word, which demonstrates vocabulary knowledge.

During a whole class discussion, Rylee told the researcher that Regan was *craving* attention. Rylee used vocabulary words verbally on two other occasions when she said "*Hurl* Harbor" jokingly as Kent talked about Pearl Harbor. In addition, upon dressing for crazy day, Rylee said jokingly "I'm *absurd*!" Another instance where a word was used verbally was when Abby asked "What if our whole group makes a 100?" Adam, also in her group, replied, "That would be *spectacular*."

Summary of Results

Examination of the data provided both qualitative and quantitative evidence which helped to answer the research questions. The data set included student and teacher interviews, field note observations, vocabulary test results, and student writing samples. The qualitative data helped to answer the main research question as well as subquestions 1a, 1b, and 1c. The quantitative data helped to answer one aspect of the main research question.

Evidence from vocabulary tests and field notes provided information to help answer question one, which concerned the effects of vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized reading program. Group B, the group receiving no vocabulary instruction, achieved an overall test

average of 34.49. Group A, the group receiving vocabulary instruction, achieved an overall test average of 90.04, indicating that the instruction improved students' vocabulary.

Analysis of qualitative data collected in field note observations demonstrated that several factors influenced students' vocabulary achievement, including the following: test design, which caused confusion in some test situations; self-selected vocabulary words, which resulted in difficult vocabulary words; and, exposure to vocabulary words, including exposure at home or at school, which provided students varied experiences learning definitions and using words. In addition, evidence collected from qualitative data enabled a description of the effects of vocabulary instruction on student motivation toward vocabulary learning as well as a description of the effects vocabulary instruction had on acquired vocabulary knowledge. Students in the study exhibited positive affective behaviors that demonstrated motivation toward learning vocabulary words. Effects of instruction on student motivation were discovered in interviews as well as in field note observations. Students also gained vocabulary knowledge, which includes using vocabulary terminology; defining words using dictionaries, structural analysis, and contextual analysis; recognizing unfamiliar words during reading; and using words in sentences. Data regarding vocabulary knowledge were collected from interviews as well as from field note observations.

Questions 1a and 1c address the same information. Question 1a initially required observations involving student use of vocabulary knowledge as they read their books. The task of using vocabulary knowledge during reading proved difficult to observe. Question

1c concerned student attention to their words in the environment. Student use of vocabulary knowledge while reading coincided with the attention students gave their words. In other words, student attention to words in their environment included the attention they paid to words in their "print environment" as they read their books. Students recognized and pointed out vocabulary words in their books. Questions 1a and 1c were discussed together using data collected from field note observations.

Question 1b dealt with student use of vocabulary words in reading journals or in writing samples. This question was answered with qualitative data from student reading journals and writing samples. Students used vocabulary words both in their reading journals and in writing samples. Twenty-three instances were noted where students used vocabulary words in their reading journals. Eight instances were found where students used vocabulary words in writing samples. Verbal use of vocabulary words, another form of expressive vocabulary, was recorded in thirteen instances.

This chapter discussed the results and findings for each of main research question and the three subquestions. The final chapter will discuss the conclusions and implications of these results and findings, and recommendations for further research.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

This chapter begins with a summary reviewing the purpose of the study, the research design, the subjects, the research questions, the data analysis, and the results of the research. Following the summary are the conclusions that elaborate on the researcher's interpretations of the results of the study. The chapter concludes with suggestions for further research.

Summary

The purpose of this study was to explore the effects of one approach to vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized reading program. The research design is descriptive in nature and uses both qualitative and quantitative research methods. The researcher, acting as a participant observer, collected data over a period of twelve weeks during the Fall of the 1999-2000 academic year. Data collected during students' reading time, which involved vocabulary instruction during mini-lessons, the silent reading of self-selected books, one-on-one researcher/student interactions, and the self-selection of vocabulary words, were qualitatively examined to find emerging patterns during vocabulary learning. Quantitative data from vocabulary tests of one group of students receiving vocabulary instruction and one group of students receiving no instruction were analyzed to determine student learning of vocabulary words.

Subjects were fourth grade students attending a school located in North Central Texas. According to information provided by the school district, the school served a population representing an ethnicity ratio of approximately .23 percent American Indian, .47 percent Asian, 17.48 percent African American, 12.36 percent Hispanic, and 69.46 percent Anglo American (contact the researcher for more information). The school receives Title I funding, meaning that the majority of the population is economically disadvantaged. Fourth grade students in one classroom, Group A, received vocabulary instruction and participated in the self-selection of vocabulary words. The students took a vocabulary test at the end of each week over ten words the class selected. Group A's scores were used to determine vocabulary learned. Group A initially included 18 Anglo Americans, 5 African Americans and 3 Hispanic students. By the end of the study, Group A consisted of 15 Anglo Americans, 3 African Americans, and one Hispanic. Another group of students, Group B, did not participate in the same vocabulary approach. They did, however, receive some vocabulary instruction from their classroom teacher. Group B took the same tests as Group A. Group B's scores were used to determine whether or not students could experience success on fill-in-the-blank tests without receiving instruction on the vocabulary words. Group B consisted of 13 Anglo American students and 3 African American students.

The researcher sought to answer the following questions regarding vocabulary instruction:

1.) What are the effects of one approach of vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized program?

APPENDIX A

RESEARCH PERMISSION

University of North Texas
Research Services

August 10, 1999

Jodi Louise Pilgrim
440 Venezia Ct.
Princeton, TX 75407

Institutional Review Board for the Protection of Human Subjects in Research (IRB) RE: Human Subject Application #98-148

Dear Ms. Pilgrim,

The UNT IRB has received your request for modifications of your project entitled "An Investigation of Vocabulary Instruction in an Individualized Reading Program." As required by federal law and regulations governing the use of human subjects in research projects, I have examined the proposed changes. The risks inherent in this research are minimal, and the potential benefits to the subjects outweigh those risks. The submitted modifications to your project is hereby approved for the use of human subjects on this project.

The UNT IRB must re-review this project prior to any other changes you make in the approved project. Please contact me if you wish to make additional modifications or need additional information.

Sincerely,
Reata Busby, Chair
Instructional Review Board

RB:sb

PO. Box 305250 ~ Denton Texas 76203-5250
(940) 565-3940 ~ Fax (940) 565-4277 · TDD (800) 735-2989
e-mail: lane@abn.unt.edu

PARENTAL CONSENT LETTER

Dear Parents:

I will be conducting a research project designed to investigate vocabulary instruction in an individualized reading program in Ms. _____'s fourth grade classroom. I request permission for your child to participate. The vocabulary instruction that will be introduced is the program I used as a fourth grade teacher at _____ two years ago and last year in Miss _____'s class. The study consists of a weekly vocabulary list, with words chosen by students from their books, which will be defined and studied for a test that will be given on Friday. The main goal of the study is to determine the extent that vocabulary instruction in an individualized reading program--with each child reading books of his/her own choice--will enhance students' understanding of vocabulary words and will enhance their use of new words verbally and in writing.

Each child will create his/her own collection of vocabulary words learned throughout the study. Ms. _____ and I will introduce strategies to help define words as well as strategies to help learn words. Each child will be invited to answer questions about his/her vocabulary knowledge in two interviews conducted by me. The interviews will be tape recorded. Children's responses will be reported as group results only. Children will not be identified by name in the report. In addition, if any class session is video taped, the video will be viewed by the researcher to observe anything that may have been missed in class. After the study, the video will be destroyed.

Your decision whether or not to allow your child to participate will in no way affect your child's standing in his or her classroom. At the conclusion of the study, a summary of group results will be made available to all interested parents and teachers. Should you have any questions or desire further information, please call me at (972) 736-2318. Thank you in advance for your cooperation and support.

Sincerely,
Jodi Pilgrim

THIS PROJECT HAS BEEN REVIEWED BY UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS (940-565-3794)

****

Please indicate whether or not you wish to have your child participate in this project, by checking a statement below and returning this letter to your child's teacher as soon as possible.

I do grant permission for my child, _____, to participate in this project.

I do not grant permission for my child, _____, to participate in this project.

_____ Parent/Guardian's signature

PARENTAL CONSENT LETTER

Dear Parents:

I will be conducting a research project designed to investigate vocabulary instruction. Ms. _____'s fourth grade class will be a control group for my project. I request permission for your child to participate. A vocabulary test will be given to Ms. _____'s students once a week for approximately nine weeks. The test consists of ten sentences with blanks that the students will fill in with the appropriate vocabulary word. The vocabulary words will be provided on the test. The test will take approximately 15 minutes to complete.

The main goal of the study is to determine the extent that vocabulary instruction in an individualized reading program--with each child reading books of his/her choice--will enhance students' understanding of vocabulary words their attention to words. The words on the test are words fourth graders would encounter in reading materials--in fact the words are chosen by other fourth graders. Because Ms. _____'s class is a control group, they will not receive vocabulary instruction from myself before they take the test. However, the tests may be used by the teacher as a tool. Ms. _____ may provide vocabulary instruction after the tests have been administered. She may use the tests as pre-assessments to determine which words students do not know (that need to be taught) and which words they learn after vocabulary instruction (improvement).

Children will not be identified by name in the report. In addition, test scores are confidential. Your decision whether or not to allow your child to participate will in no way affect your child's standing in his or her classroom. Should you have any questions or desire further information, please call me at (972)736-2318. Thank you in advance for your cooperation and support.

Sincerely,
Jodi Pilgrim

THIS PROJECT HAS BEEN REVIEWED BY UNIVERSITY OF NORTH TEXAS COMMITTEE FOR THE PROTECTION OF HUMAN SUBJECTS (940-565-3794)

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I do grant permission for my child, _____, to participate in this project.

I do not grant permission for my child, _____, to participate in this project.

_____ Parent/Guardian's signature

a. Do students use vocabulary knowledge gained as they read their books?

b. Do students use vocabulary knowledge gained as they write in their reading journals or in their writing samples?

c. Do students attend to their words in the environment?

Data included field note observations, student and teacher interviews, student reading journals and writing samples, and vocabulary tests. Qualitative data were analyzed according to procedures recommended by Miles (1984) and Glesne and Peshkin (1992). The qualitative data were reported as narrative description. Quantitative data from student tests consisted of graded and averaged test scores. The quantitative data were reported as a comparison chart for test averages of Group A and Group B. The following section summarizes both qualitative and quantitative results.

Results

Examination of the data provided both qualitative and quantitative evidence which helped to answer the research questions. The data set included student and teacher interviews, field note observations, vocabulary test results, and student writing samples. The qualitative data helped to answer the main research question as well as subquestions 1a, 1b, and 1c. The quantitative data helped to answer one aspect of the main research question.

Evidence from vocabulary tests and field notes provided information to help answer question one, which concerned the effects of vocabulary instruction on the reading and writing vocabulary of fourth grade students in an individualized reading program. Group B, the group not participating in the vocabulary approach, achieved an

overall test average of 34.49. Group A, the group receiving vocabulary instruction, achieved an overall test average of 90.04, indicating that the instruction was effective in helping students learn vocabulary.

Analysis of qualitative data collected in field note observations demonstrated that several factors influenced students' vocabulary achievement, including the following: test design, which caused confusion in some test situations; self-selected vocabulary words, which resulted in difficult, or above grade-level, vocabulary words; and, exposure to vocabulary words, including exposure at home or at school, which provided students varied experiences learning definitions and using words. In addition, evidence collected from qualitative data provided a description of the effects of vocabulary instruction on student motivation toward vocabulary learning as well as a description of the effects vocabulary instruction had on acquired vocabulary knowledge. Students in the study exhibited positive affective behaviors that demonstrated motivation toward learning vocabulary words. Effects of instruction on student motivation were discovered in interviews as well as in field note observations. Students also gained vocabulary knowledge, which included students' abilities to generate definitions, students' abilities to use words correctly in oral and written contexts, students' abilities to recognize and understand words in their reading vocabularies, and students' abilities to learn words independently using acquired vocabulary skills. Data regarding vocabulary knowledge were collected from interviews as well as from field note observations.

Questions 1a and 1c address the same information. Question 1a initially required observations involving student use of vocabulary knowledge as participants read their

books. Question 1c concerned student attention to their words in the environment. Student use of vocabulary knowledge while reading coincided with the attention students gave their words. Questions 1a and 1c were discussed together using data collected from field note observations. Results indicate that students attended to their words in the print environment.

Question 1b dealt with student use of vocabulary words in written expression. This question was answered with qualitative data from student reading journals and writing samples. Students used vocabulary words both in their reading journals and in writing samples. Students received approximately ten minutes to write in their journals about three different times each week. Three student writing samples were provided by the classroom teacher, which were also examined by the researcher. Out of this collected data, twenty-three instances were noted where students used vocabulary words in their reading journals. Eight instances were found where students used vocabulary words in writing samples. Verbal use of vocabulary words, another form of expressive vocabulary, was recorded in thirteen instances. Verbal use of words could only be observed by the researcher during reading time each day. Any other verbal use of vocabulary by the students could not be recorded.

The next section is interpretive in nature, describes the conclusions of the researcher, and indicates possible reasons for the effects described in the previous section.

Conclusions

On the basis of the qualitative and quantitative findings for this sample of fourth grade students, the conclusions specified below describe the researcher's interpretation of

the elements that impacted the effects of vocabulary instruction on students' reading and writing vocabulary. The elements that appeared to impact vocabulary learning include vocabulary instruction, vocabulary knowledge, and the learning environment.

Vocabulary Instruction

This study has indicated that vocabulary test scores obtained by the fourth grade students appeared to be influenced by vocabulary instruction. In addition, both students' reading and writing vocabularies were affected by instruction. Explanations for the positive effects the instruction had on vocabulary learning are described below. As evidenced in other studies, context and exposure to words can impact student vocabulary learning. Context and exposure to words especially influenced vocabulary instruction in this study and are emphasized in the following discussion.

Context. One possible explanation suggests that context can assist the word learning process (Zimmerman, 1998). Understanding a word in context was necessary information in order to complete the fill-in-the-blank tests. Graves, one of the experts in the field of vocabulary instruction contacted for information concerning the fill-in-the-blank test, acknowledged that the fill-in-the-blank test format assesses a student's ability to fit a word into a sentence context, as opposed to their ability to recognize a definition (Graves, M. E., personal communication, September 1999). As students prepared for tests, they encountered the vocabulary words in natural contexts a number of times: the words were in a contextual sentence on the study sheet; class reviews and activities included discussions where the words were used in context; and students often practiced making additional sentences with the words. This preparation provided meaningful

practice, which is emphasized by Nagy (1988). Nagy suggests that "meaningful use instruction" helps the learners to use the instructed words meaningfully and helps them process the words more deeply. Processing words more deeply can lead to student use of the vocabulary words as well. According to Stahl's (1986) "generation" level of processing word meanings, which reflects a deep level of cognitive processing, a word is "known" when a student is able to retrieve that word from memory rapidly and use it correctly in an uninstructed context. Results from qualitative data indicate that students in this study were able to retrieve words from memory and use them in their writing vocabularies as well as in verbal expression. Finally, according to Lennon (1990) and Stroller and Grabe (1993), "context can disambiguate and delimit the meaning of a word; it can provide information about discourse relationships and expose learners to a word's range of meanings" (as cited in Zimmerman, 1994, p. 95).

Exposure to words. A second possible explanation for students' test performance and reading and writing vocabularies lies in the probability that repeated encounters with words may lead to a better sense of how the words are used in actual communication (Zimmerman, 1998). Vocabulary words were encountered by Group A first through self-selection in their books or in their groups; through their vocabulary rings; through study preparation in class and at home; and through class discussion. Students also encountered (incidentally) their words in their reading books throughout the twelve week study. Repeated exposures to words plays an important role in student learning of vocabulary words. According to Beck and McKeown (1983), "a vocabulary program should incorporate repeated and varied encounters with the instructed words if it is to be

successful in expanding children's vocabularies" (p. 181). In addition, they report that if new words are to become a permanent part of children's vocabularies, practice must extend beyond classroom learning, which is in part due to the fact that words introduced at the intermediate grades are not usually heard in everyday conversation and thus reinforced naturally. "Such words need systematic reinforcement as part of instruction" (Beck & McKeown, 1983, p. 180). Beck and McKeown suggest that children should be challenged to find learned words in contexts beyond the classroom and to use the words in their own conversations and writing. The words students in this study selected are not usually heard in fourth graders' everyday conversations, yet students demonstrated that they had learned the words through their performance on fill-in-the-blank vocabulary tests and through the use of the words after they had been learned--students used words in both conversation and written expression. In addition, in a second student interview, students referred to (and remembered) words they had studied throughout the vocabulary program. The researcher believes that the repeated exposures students received in this study helped them improve receptive vocabulary knowledge as well as expressive vocabulary knowledge.

Nagy (1988) agrees that students need repeated exposures to words in order for students to obtain more than limited knowledge of word meanings. He suggests that limited knowledge of a word, such as being able to identify or produce a correct definition for a word, does not guarantee that one will remember its meaning easily during reading. "Vocabulary instruction must therefore ensure not only that readers know

what the word means, but also that they have had sufficient practice to make its meaning quickly and easily accessible during reading" (p. 23).

Vocabulary knowledge

Results from this study indicate that students attended to vocabulary words in their print environment. Students appeared enthusiastic about encountering their new words as they read their books. The researcher believes that this enthusiasm could have been due to student interest in vocabulary learning.

Perhaps just as important as recognizing new words they had learned, students began to attend to unfamiliar words as they read. The goal of Phase III in this study was that students collect vocabulary words on their own without assistance. This led to independent word learning, which is discussed below.

Independent word learning. One major accomplishment of this study was that it fostered word consciousness and students learned and used strategies for learning words independently. Researchers such as Nagy (1988) suggest that a "major motivation for vocabulary instruction is to help students understand what they are about to read" (p. 1-2). How do teachers do this in individualized classrooms? In opposition to Nagy's statement, teachers will not always be there to help students "understand what they are about to read." This vocabulary program taught students how to recognize and learn unfamiliar words on their own.

Disagreements exist over which type of vocabulary strategies teachers should use in the classroom. Two of the most popular types of instruction include the use of context clues and the learning of word meanings (definitional instruction). However, most

researchers agree that a combination of strategies should be used. Beck and McKeown (1991) state that "no one method has been shown to be consistently superior" and "there is advantage from methods that use a variety of techniques" (p. 805). In addition, Baumann and Kameenui (1991) support a combination of methods by reporting that students are more likely to learn new vocabulary when definitional information is combined with context clues than when contextual analysis is used in isolation. A combination of techniques helped create a unique vocabulary program for this study. Instruction included the teaching of specific words, the teaching of strategies such as context clues and structural analysis which helped students figure out meanings on their own, and the use of the dictionary in defining words. Results from this study indicated that students increased their vocabulary skills, which in turn led to increased vocabulary knowledge and an increased ability to learn words independently.

According to Nagy (1988), a problem with research in the area of vocabulary instruction is that research documenting which methods of instruction actually increase independent word learning has not been conducted (p. 38). He suggests ways, though, that independent word learning can be increased. Among his suggestions are teaching context and structural analysis to help students learn to deal with unfamiliar words on their own. Students in this study were taught both strategies. Nagy proposes that the ability to use a dictionary is an important skill, even though he reports that having students look up definitions is not especially effective at producing in-depth word knowledge. He suggests teachers minimize copying definitions and maximize activities treating dictionary use as a skill to be mastered. In this study, students used dictionaries to

find word meanings, but other necessary dictionary skills were also taught. Students learned to create their own definitions, they learned how to improvise if they did not understand the dictionary definition, and they looked up words as they felt needed as opposed to upon the teacher's (researcher's) directions. The combination of vocabulary instruction and student opportunities to practice these strategies impacted the outcomes of the study.

In conclusion, "the goal of vocabulary development is to insure that students are able to apply their knowledge through independent encounters with words" (Beck & McKeown, 1991, p. 810). The research done in this study is in conjunction with conclusions drawn by Beck and McKeown in their quest for the best way to reach this goal. The instruction used in this study helped add to students' repertoires both specific words and skills that promote independent learning of words, and also provided opportunities from which words can be learned (p. 810).

Learning Environment

This study has indicated that students appeared to be affected by the learning environment. The learning environment includes the context in which the learning took place. Vocabulary instruction occurred within the context of a Reading Workshop program. It is unknown whether or not the vocabulary approach would have the same results if implemented in another reading program, such as the basal program. However, several components of the Reading Workshop helped provide a natural context in which students could self-select their vocabulary words. Nancie Atwell purports that Reading Workshop, based on a holistic theory of instruction, incorporates an instructional

framework where teachers design lessons and create a literary environment that supports, motivates, and challenges readers (Atwell, 1987). Several aspects of the learning environment, including self-selected vocabulary words, wide reading, teacher role, and social activity appeared to contribute to students' interest in learning vocabulary.

Self-selected vocabulary words. The learning environment especially appeared to effect student motivation to learn vocabulary words. Choice has been found to be a powerful factor in motivation studies (Gambrell, 1996; Turner, 1995). Motivation theories support an instructional framework that effects the principles of promoting choices, self-perceived control, challenging tasks, and collaboration (Baker, Afflerback, & Reinking, 1996, p. 117). Students self-selected vocabulary words for their vocabulary rings and for the weekly vocabulary test. Students looked for the "longest," most difficult words when selecting words for the test. Collaboration played a role as well. "Collaboration" among students often resulted in students pointing out vocabulary words to one another. They shared their enthusiasm about vocabulary with the researcher, too.

According to Turner (1995), when students are interested in texts and tasks, they attend to them longer and remain with them even if somewhat difficult. Turner also reports that interest influences the goals set by students, and that they are more likely to set learning goals when they are interested in a task as opposed to when they are not interested (Turner, 1995, p. 417). The researcher found that some students who usually struggle with reading attended to the task of choosing and studying words.

Wide reading. Silent reading was an important part of the instructional approach used in this study. Wide reading is recommended by several researchers in the field of

vocabulary instruction. Nagy, Herman, and Anderson (1985) contend that regular, wide reading must be seen as a source of large-scale, long-term vocabulary growth. Although researchers suggest that the wide reading can substitute for instruction as a source of vocabulary learning, the approach used here includes wide reading as well as instruction. Where some primary grade classrooms read independently only 7 to 8 minutes per day (Anderson, Hiebert, Scott, & Wilkinson, 1985), students in this Reading Workshop program received considerably more opportunities for independent reading.

Teacher role. Teachers play a powerful role in creating positive learning environments for students. The researcher in this study worked to display an interest in the words students were selecting. Teacher (researcher) modeling of vocabulary skills and vocabulary use occurred daily throughout the study. Graves (2000) addresses the teacher's role in nurturing word consciousness for students. According to Graves, if teachers want students to strive for the skillful use of words in speech and writing, "we want them to see that we care about words and how we use them" (p. 128).

Social activity. The learning environment in this vocabulary approach was social. Sociocultural theory indicates that learning happens in a social context and Vygotsky (1978) viewed intelligence as being shaped by social rather than solely by innate forces. Students interacted in groups in order to discuss and select vocabulary words for the class test. In addition, students socially interacted with the researcher in one-on-one situations. Vygotsky's theory of the zone of proximal development demonstrates how learning/teaching interactions work to increase a child's cognitive development. Vygotsky (1978) defined the zone as "the distance between the actual level of

development as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance of in collaboration with more capable peers" (p. 86). The students in the class received guidance on vocabulary knowledge from both the teacher and peers, which the researcher believes influenced their performance in the area of vocabulary achievement.

The theme echoed throughout the discussion of environment as an element of vocabulary learning is that the context of the Reading Workshop approach and the vocabulary approach as used in this study involves a complex combination of elements working together at once. The classroom environment is one that is conditional. Nancie Atwell (1987) states that, "What I do in my classroom next year will not look exactly like the classroom I described here. New observations and insights will amend theory; the process by which I translate theory into action will change. The agents for change are my students" (p. 254). A teacher can effect the environment of the classroom. Students and their attitudes can also effect the environment of the classroom. In this study, the researcher, acting as teacher, facilitated group discussions, provided mini-lessons as needed, modeled vocabulary usage, and responded to students both in person and through journals. The tests the researcher composed could differ significantly from the tests composed by someone else. The words students chose in this study could differ significantly from words another group of students would choose. The researcher believes that the environment of the reading and vocabulary approach used in this study served to positively impact vocabulary achievement.

Overall, the researcher concludes that the vocabulary instruction used in this study and implemented in this individualized reading classroom was effective in increasing knowledge of vocabulary skills, students' reading and writing vocabularies, and students' interest in vocabulary learning. The elements that impacted these results included vocabulary instruction, vocabulary knowledge, and the learning environment.

Summary of Conclusions

1. Effective vocabulary instruction includes opportunities for wide reading.

2. Effective vocabulary instruction includes opportunities to for students to read and use words in context.

3. Effective vocabulary instruction includes repeated exposures to target words.

4. Effective vocabulary instruction includes a variety of methods, including the use of context clues, structural analysis, and dictionary skills, to promote independent word learning.

5. Effective vocabulary instruction involves teachers who foster word consciousness through the modeling of vocabulary use and knowledge so that students will strive for the skillful use of words in speech and writing (Graves, 2000).

6. Effective vocabulary instruction includes opportunities for choice, such as in the self-selection of vocabulary words.

7. Effective vocabulary instruction includes the teaching, modeling, and reinforcement of vocabulary skills and attention to unfamiliar words with the goal of students internalizing the strategies and using the strategies without prompting.

Recommendations for Further Study

This study addressed the issue of vocabulary instruction within an individualized reading program. Fourth grade students participating in a Reading Workshop program received vocabulary instruction for twelve weeks and took tests over self-selected vocabulary words. The data collected demonstrated that the vocabulary instruction was effective in helping students learn specific words, in motivating students to learn words, and in promoting students to learn words independently.

Further study on vocabulary instruction in individualized reading programs needs to be done to answer questions regarding effective ways to expand students' vocabularies. When students participate in individualized reading programs, reading materials are varied, and it is often difficult for teachers to know which words to teach students. The self-selection process proved effective in this study, but further research is needed to determine other effective ways to present vocabulary words.

Along the same lines, research examining self-selected vocabulary within a basal program is needed in order to compare the two reading approaches. One may wonder if the vocabulary instruction implemented here would have the same effects if implemented in a basal program as opposed to an individualized reading program. In addition, would the environment in a basal program provide the same benefits that students received in the Reading Workshop program?

Students in this study used vocabulary words both verbally and in written expression. It would be interesting to observe whether or not students would continue to use vocabulary words throughout the school year, or if students would forget the words without repeated emphasis on vocabulary learning. Also, it would be interesting to

observe whether or not students continued to attend to the words in their books as the year progressed. A more longitudinal study is needed to address sustained vocabulary knowledge.

Nagy (1988) states that "the obviousness of the need and the strong relationship between vocabulary and comprehension invite a simplistic response: if we simply teach students more words, they will understand text better" (p. 1). He emphasizes, though, that not all vocabulary instruction increases students' reading comprehension. This study examined word learning through vocabulary tests and observation. The effect vocabulary instruction had on student comprehension was not addressed. Further study needs to explore achievement in the area of comprehension as a result of a self-selected vocabulary program involving various types of vocabulary instruction.

"We currently know a great deal about vocabulary instruction (Beck & McKeown, 1990); Blachowicz & Fisher, in press; Graves, 1986; Nagy & Scott, in press). Unfortunately, however, vocabulary instruction is currently a somewhat neglected topic in the field (Cassidy & Wenrich, 1997, 1998); and although we have little information about the vocabulary instruction that actually takes place in schools, the information we do have (Ryder & Graves, 1994; Watts, 1995) suggests that much of the vocabulary instruction makes little use of the knowledge base we have built" (as cited in Graves, 2000). Researchers and teachers together must continue to use what we know about vocabulary knowledge to develop vocabulary programs that provide opportunities for students to acquire vocabulary words.

APPENDIX B

TEACHER INTERVIEWS

TEACHER INTERVIEW-- Group A

How do you think children learn vocabulary?

How have you taught vocabulary in the past?

What do you think about the vocabulary process we've implemented in your classroom? (strengths, weaknesses)

What are student reactions to the vocabulary program?

What are parent reactions to the vocabulary program?

How are students motivated to learn vocabulary words?

How has the vocabulary instruction influenced what you do in the classroom?

Do you think the vocabulary rings are effective? the study sheets? the tests?

How do you feel about the students' use of dictionaries?

How would you describe this program to colleagues?

Do you feel confident enough in the program to implement it on your own?

Do you foresee any changes or problems in this program before the semester is over?

TEACHER INTERVIEW--Group B

1. What kind of vocabulary instruction do you do with your students? How often?

2. What are the students' reactions to the vocabulary tests? What observations have you made about their performance, motivation, or anxiety?

3. What do you tell the students about the tests?

4. Do students ask to refer to dictionaries or any other resource during the test?

5. When do you give the test?

6. How long does it take your students to complete the tests?

7. Has the vocabulary test influenced anything you do in the classroom?

APPENDIX C

STUDENT INTERVIEWS

STUDENT INTERVIEW #1

What kind of books do you like to read?

Do you ever have a hard time with the words in books? (What do you do when that happens?)

What are vocabulary words?

Have you ever had to learn words for a teacher?

What are some words you've learned in recent years?

What is a definition?

Have you ever studied words to learn their meanings?

How can you find out what a word means?

Can you read and understand a book if you do not know all of the words?

Do you use new words you have learned when you talk or write?

Do you know a lot of words? Can you give me an example of a "neat" word you know? Can you use it in a sentence?

STUDENT INTERVIEW #2

Tell me what you like about our reading time.

What are vocabulary words?

What is a definition?

How can out find out what a word means?

Can you read and understand a book if you do not know all of the words?

How do you recognize words you don't know (What makes you write down a word in your vocabulary ring)?

Do you use new words you have learned when you talk or write?

How do you study for a vocabulary test?

How do you think you have been doing on the vocabulary tests?

What kinds of strategies have you learned to help you figure out word meanings?

Tell me some of your favorite words that we've learned this year. Can you give me a sentence using a word we've learned?

APPENDIX D

VOCABULARY STUDY SHEETS

Name_____

Vocabulary Study Sheet

immature

reek

reluctant

indignant

insane

1. That girl was acting immature because she went to the mall and didn't get what she wanted.

2. The rotten eggs really reeked!

3. They were reluctant to clean their rooms on a Saturday afternoon.

4. The boy was indignant when his brother told on him.

5. My cat looks insane when she is running around the house chasing a mouse.

Name_____

Vocabulary Study Sheet #1

mistreated

glanced

forbidden

sensational

boisterous

humiliated

appetizing

sheepishly

bewildered

aroma

1. Phillip mistreated his pet dog.
2. T.J. glanced at Tony's paper during the test.
3. I discovered a forbidden cave.
4. This movie is sensational.
5. The children are boisterous when they are yelling and out of control.
6. The boy was humiliated when the teacher asked him a math problem and he did not know it.
7. The raw oysters didn't look very appetizing.
8. The guy's pants fell down so he sheepishly started pulling them up.
9. The little girl was bewildered when she was lost in the mall.
10. When the spring flowers bloom you can smell the wonderful aroma.

Name_____

Vocabulary Study Sheet #2

smirked

astonished

amusing

protested

vanished

comical

enthusiastically

occurred

heed

grief

1. Taylor smirked at Joe when he slipped past to make a touchdown.
2. I was astonished when a man shot people in a church.
3. The circus rides were amusing.
4. The girl protested after her friend told a big fat lie.
5. I saw a girl, but when I turned around she vanished.
6. The comical fish was wearing glasses.
7. Miss Kentucky enthusiastically screamed when she heard her name and became Miss America.
8. A terrible accident occurred in a Methodist church in Dallas, Texas yesterday.
9. He should heed my warning.
10. He felt grief when his daughter died.

Name_____

Vocabulary Study Sheet #3

sophisticated

devouring

admiringly

glistened

captive

exaggerated

unison

apologetically

quipped

craved

1. Choko is very sophisticated because he went to college and got a degree.
2. The boy was devouring his sandwich.
3. She admiringly looked at her teacher.
4. The sun glistened on the lake.
5. Chris was held captive by the kidnappers.
6. Ryan exaggerated when he got his new Mazda Miata and told everyone that it had 280 horse power. It really only had 200 horse power.
7. At the wedding the bride and groom lit the candle in unison.
8. The woman looked at her husband apologetically because she made the wrong coffee.
9. "She sure isn't smart," quipped Emily.
10. Adrian craved chocolate all day at school.

Name_____

Vocabulary Study Sheet #4

shimmered

nuisance

obnoxious

assured

envious

moored

appearance

anxious

authority

ominous

1. The ocean shimmered in a very unsteady way.
2. Ryan was a nuisance when he called people names.
3. My group is obnoxious because they don't work.
4. Adrian assured his little cousin that school was fun.
5. The boy was envious because his sister got to go to camp and he didn't.
6. The ship was moored at the dock.
7. Amy's appearance changed a lot through fall break.
8. Tiffany was anxious about finding out who stole the teacher's pen.
9. The police have the authority to arrest people.
10. The football coach made an ominous remark to the referee.

Name_____

Vocabulary Study Sheet #5

devoted
dainty
endearments
quivering
uncontrollably
hostile
corpse
ornery
sabotaged
disorderly

1. The kid was devoted to the queen.
2. The little boy thought the little girl was dainty.
3. Phillip wrote an endearment to his mom.
4. Joe was quivering in the cold water.
5. My dog was uncontrollably wild.
6. Jessica walked by with a hostile look.
7. A seven year old child found a dog corpse by the rail road.
8. The kid was very ornery when he hid his mother's purse.
9. I sabotaged the ugly mealworms.
10. The mealworm cage is very disorderly.

Name_____

Vocabulary Study Sheet #6

reproached
illusion
absurd
comprehensive
rummaged
eager
scrupulously
modest
frantically
protégé

1. The teacher reproached the boy for writing on the chalkboard with marker.
2. The boy had an illusion of a bear attacking him.
3. Bobby made an absurd remark to his mom.
4. Rachel did a comprehensive study on animals.
5. I rummaged through my desk to find my notebook.
6. I was eager to go to the Halloween party.
7. The teacher scrupulously walked to the principal's office.
8. Jordan was very modest about his new girl friend.
9. Sally was frantically jumping and screaming when she won the lottery.
10. Freddy was Mr. Long's protégé.

Name_____

Vocabulary Study Sheet #7

dumbfounded
gleefully
optimistic
spectacular
conniption
penetrated
hesitated
curt
seeped
dimension

1. Cheryl's sister was dumbfounded when her friend slapped her.
2. George gleefully skipped to school.
3. A.J. was optimistic about his test.
4. The volcano was spectacular when it erupted.
5. My mom fell over and threw a conniption.
6. The lightning penetrated the dark night sky.
7. Shelly hesitated when Lilly said she wasn't her friend anymore.
8. My friend made a curt remark because I didn't come to her house.
9. The burning acid seeped through the hole.
10. The boy cried in agony as he traveled through another dimension!

Name_____

Vocabulary Study Sheet #8

promptly
loathe
triumphantly
ablaze
reclaimed
sarcastic
agonizing
swiftly
stalked
gorgeous

1. George promptly told Choko his lines.
2. George and Choko loathe math.
3. The Lions' cheerleaders triumphantly did a stunt.
4. The palace was ablaze with flame.
5. The girl reclaimed her coat at the front desk.
6. "Duh," said Shelly in a sarcastic voice.
7. The boy was agonizing over his math paper.
8. The girl swiftly moved through the park.
9. The old lady stalked out of the store because she got cheated.
10. Mickey Mouse and his gorgeous wife went on a cruise.

APPENDIX E

VOCABULARY TESTS

Name_____

Vocabulary Practice Test

immature
reeked
reluctant
indignant
insane

1. The smell coming from the cafeteria this morning really _____.

2. My dog looks _____ when he chases his own tail.

3. Greta and John were _____ to get on the bus after school because they thought their mom was supposed to pick them up.

4. Greg was embarrassed when his _____ little sister started crying in the mall.

5. Mrs. Jones was _____ when all of the students didn't bring their homework.

Name_____

Vocabulary Test #1

mistreated	humiliated
glanced	appetizing
forbidden	sheepishly
sensational	bewildered
boisterous	aroma

1. I was _____ when my mother kissed me in front of the entire class.

2. A wonderful _____ was coming from the kitchen.

3. Mr. Long spoke to the assembly with his _____ voice.

4. Sam _____ at the answers on Mrs. Jones's desk.

5. The food my mother packed in my lunch box doesn't look very _____.

6. Missy _____ her best friend when she called her a name.

7. Kim grinned _____ at everyone when she had to get up in front of the whole class.

8. I am _____ to play outside after dark.

9. I am reading a _____ book about an invisible man.

10. Pam had a _____ look on her face when the teacher gave her a signature.

Name_____

Vocabulary Test #2

grief	vanished
heed	protested
occurred	amused
enthusiastic	astonished
comical	smirked

1. A fire drill _____ in the middle of our math lesson.

2. We were _____ by the puppets in the play.

3. Please take _____ of the hole in the ground.

4. We were _____ when we saw that someone had written all over the walls in the restrooms.

5. Kindle _____ at me as she put a note on my desk.

6. I felt _____ when my dog Fluffy died.

7. The class is very _____ about our field trip.

8. The clouds in the sky _____ around noon.

9. The class _____ against having homework on a Friday.

10. Many students in our class try to act _____.

Name_____

Vocabulary Test #3

sophisticated	exaggerated
devoured	unison
admire	apologetically
glistened	quipped
captives	craving

1. “I can do the problem myself,” _____ Regan.

2. The horse _____ the apple I gave him.

3. The diamond _____ when the light hit it.

4. The school recited the Pledge of Allegiance in _____.

5. “I am _____ a Peanut Butter and Jelly sandwich,” I told my mom.

6. Connie _____ when she bragged to everyone that she caught a fish that was 2 feet long.

7. I _____ police officers because they risk their lives to protect us.

8. My big sister thinks she looks _____ when she wears my mother’s clothes and high heels.

9. The _____ were set free when the war was over.

10. “I really didn’t mean to hurt you,” I said _____.

Name_____

Vocabulary Test #4

shimmered	nuisance
obnoxious	assured
envious	moored
appearance	anxious
authority	ominous

1. The principal has the _____ to expel students that misbehave.

2. Tim's Halloween costume gave him a scary _____.

3. The teacher _____ the class they would do well in her class if they did their work.

4. I am so _____ about the test on Friday that I feel sick to my stomach.

5. Sally was _____ of the girl that won the bike.

6. The lights _____ on the Christmas tree.

7. My dog is a _____ when he jumps and gets mud on you.

8. The boat was _____ in the harbor.

9. The haunted house had a very _____ feel to it.

10. My _____ sister tattles on me everyday and I get in trouble!

Name_____

Vocabulary Test #5

devoted	dainty
endearments	quiver
uncontrollably	hostile
corpse	ornery
sabotaged	disorderly

1. Someone _____ some of the cars at the high school, so many students could not drive home.

2. When Joseph got a spanking his lip began to _____ and tears gathered in his eyes.

3. Mrs. Jones is _____ to teaching all of her students the best she can.

4. Policemen often work with _____ people.

5. My house becomes _____ in the mornings while everyone gets ready for work and school.

6. I found a _____ doll in a store in the mall.

7. My mother laughed _____ at her favorite comedy on T.V.

8. My sister and her _____ friends were spying on me.

9. The newscaster sadly announced that the _____ of the missing child was found by the lake.

10. I heard my father whispering sweet _____ to my mother.

Name_____

Vocabulary Test #6

absurd	comprehensive
rummaged	eager
scrupulous	modest
frantically	protégé
reproached	illusion

1. The learner paid _____ attention to the teacher's directions.
2. The _____ was a fast learner.
3. Regan was _____ to open her birthday presents.
4. His mother _____ her son for his bad manners.
5. The cheerleader was very pretty but was _____ about her looks.
6. Junior was _____ searching for his homework this morning.
7. The teacher _____ through the closet to get her coat.
8. My baby sister looked _____ after she cut her hair.
9. Mrs. Jones did a _____ unit on Texas.
10. The magician's disappearing act was simply an _____.

Name _____

Vocabulary Test #7

dumbfounded	glee
optimistic	spectacular
conniption	penetrated
hesitated	curt
seeped	dimension

1. The arrow _____ the target in the bullseye.

2. Little Tommy threw a _____ when his mom wouldn't buy him a new toy.

3. The man _____ before shooting at the deer, so it got away.

4. Coke _____ out of the bottom of my glass.

5. We watched a _____ sunset this evening.

6. Joan shouted with _____ when she scored a 100.

7. My father is being very _____ about finding a job even though he has been looking for six weeks.

8. I was reading a book where the character fell through a black hole into another _____.

9. I was _____ when I found out my best friend stole my purse.

10. My mother was _____ to the rude salesman on the phone.

Name_____

Vocabulary Test #8

prompt	loathe
triumphantly	ablaze
reclaim	sarcastic
agony	swiftly
stalked	gorgeous

1. The water moved _____ through the creek.

2. The team _____ ran off the field after the last touchdown.

3. The dancer was in _____ when she broke her arm.

4. Tom got his ticket so he could _____ his luggage after his vacation.

5. I have a classmate who always makes _____ remarks to the teacher.

6. By the time the firemen arrived, the apartment was completely _____.

7. Her hair looked _____ for the pictures yesterday.

8. "I _____ cleaning dishes," Sandy told her mom.

9. The teacher tells us that we should always try to be _____ and prepared.

10. The upset father _____ out of the principal's office.

APPENDIX F

CONTEXT CLUES

CONTEXT CLUES

1. after “or”
2. after a comma behind the word
3. before the word “called,” “is,” or “was”
4. in the sentence before
5. in the sentence after
6. fill in the blank

1. A *medallion*, or large metal, hung around the athlete’s neck.

2. The *agony*, emotional pain, of losing the ball game was seen on each player’s face.

3. A *hyena* is a wolflike animal.

4. She moved her arms up and down and wiggled her fingers constantly. Sue used *gestures* when she talked.

5. The workers began *deforestation* of the tropical rainforest. They are burning out the plants and trees to build farms.

6. Unlike yesterday’s warm weather, today was *frigid* (cold).

APPENDIX G

CONTACT SUMMARY SHEET

CONTACT SUMMARY

Contact type:
Interview _____
Classroom interaction _____

Site: _____
Contact date: _____
Today's date: _____
Written by: _____

1. What were the main themes or issues in the contact?

2. Which research questions and which variables in the initial framework did the contact bear on most centrally?

3. What new target questions, speculations, or hunches about the field situations were suggested by the contact?

4. Where should the field-worker place most energy during the next contact, and what kinds of information should be sought?

5. Anything else interesting or important in this contact?

APPENDIX H

CODES

CODES

Abbreviation	Definition
ATTD	Indicates the attention students pay to vocabulary words as a result of vocabulary instruction.

Example: During reading Shelly raised her hand and showed me *reluctantly* in her book.

CONF	Indicates researcher conferences held with either students or teachers.

Example: After the kids went to PE, I met with Ms. Jones...She mostly talked about behavior when we did talk.....

CTXT	Indicates instances where students use knowledge of context to define or determine meanings of words.

Example: We looked at the words on p. 107 and p. 54 and read them in context. They used context clues to figure out the meanings.

DEF	Indicates instances where the class or individuals are working on defining words (definitions).

Example: About 10 raised their hands when I asked if they had ever heard sophisticated before. Julie defined *sophisticated*, but she said smart. I said, yes you could be smart if you were sophisticated, but there was more to it. I looked it up. The dictionary said "having worldly knowledge"--and more. Rylee said "to be mature." I agreed and wrote "mature; knowledgeable" on the board.

DICT	Indicates dictionary usage by students.

Example: While we were reading I noticed that Anna went and got a dictionary as did Adam.

DISC	Indicates student discussions centered around vocabulary (see sub-code).
DISC-CL	Indicates whole class discussion of vocabulary words.

Example: Rylee said that the dictionary had a bad definition for *unison*. She cited it by memory. She said it was....I asked her how she got that definition and she said she figured it out from what the book said. (Often coincides with DEF).

DISC-GR	Indicates student discussions centered around vocabulary.

Example: Mary had the word *boisterous* but hadn't looked it up yet so I let her group go ahead and look it up. They liked it. Kristi wanted *inconsiderate* because she thought it would be the longest word. I mentioned to them that it even had a prefix we had studied. They had a hard time deciding--Denise wanted *humiliating*, but they finally decided on

boisterous and *humiliating.* I didn't have to help them on their sentences and they did a great job elaborating...

ENCT Indicates repeated encounters with our vocabulary words.
Example: As we read, we encountered many of the same words we've seen over again such as *pathetic, panic,* and *amusing.*

INT Indicates findings related to interviews.
Example: I interviewed at a desk in the hallway outside of Ms. Jones's room....I was very curious about 2 questions in particular--What is a vocabulary word? and What is a definition?

LIM Indicates observations that appear to be limitations to the study.
Example: Both the control group and Ms. Jones's group struggled more with this test. One of Ms. Smith's students had filled in "The clouds in the sky *occurred*"....which makes sense.

MDL Indicates teacher/researcher modeling.
Example: In journals--I modeled how as they came up with what to write. I wrote it on the board and they copied it.....

MDL-SENT Indicates researcher modeling by the use of example sentences.
Example: (Teacher) "How many of you are *reluctant* to do your homework?"

MOT Indicates student motivation.
Example: Some, as they saw they made a 100, exclaimed "YES!"

PRE Indicates instances where students use knowledge of prefixes to define words.
Example: I asked them to write down a word with a prefix from the chapter we just read...I noticed many used *unfortunate*.

PRE-PROB Indicates student problems with prefixes.
Example: We started with our rings and discussed words we already had with prefixes--*immature, indignant, insane*. Mary said we had *reluctantly*. So...I explained that word was a little different. The root word is *reluctant.*

READ Indicates the impact of vocabulary on students while they read. (This was a code from the pilot not used in this study).

RD-AD Indicates the impact of vocabulary instruction on students while the teacher is reading aloud or while other classmates read aloud.
(This was a code from the pilot not used in this study).

RD-SL Indicates the impact of vocabulary instruction on students while they read silently. (This was a code from pilot not used in this study--too subjective).

RT Indicates instances of student attention to or awareness of root/base words.

Example: The dictionary had just the root word, so on his vocabulary ring he wrote just the root word (*quip* as opposed to *quipped*).

RW Indicates effects on the vocabulary program due to a Reading Workshop environment.

Example: I went around the class and asked each person why they chose their book. A lot have Goosebump books and said they chose them because they like scary books.

RWJL-AES Indicates aesthetic response for students in journals--or even student "conversation like" responses.

Example: "TJ reminds me of....." (in a journal).

SPELL or VOC-SP Indicates instances where students express concern in being able to spell the vocabulary words (as noted in the pilot).

Example: Someone chose *concentrate* but had it spelled *connetrate*.

SPK words Acknowledges instances where students used our vocabulary in their speech.

Example: When Judy patted her hair to act out *gorgeous*, Rob said, "She's not being *modest*.

STUDY Indicates observations of students studying vocabulary words--in class or at home.

Example: We then reviewed the words they should have studied last night. When I asked who studied very few raised their hand....

SUFF Indicates instances where students use knowledge of suffixes to define words.

Example: We talked about how -ly at the end of a word means it's an adverb which answers how. So if you do something "*apologetically*" that answers HOW you do it (when discussing the word a*pologetically*). Overlaps with USG and DISC-CL.

TEST Indicates the impact of vocabulary instruction on vocabulary test scores.

Example: (Mostly student scores: Denise 100, etc.)

TEST-CTRL Indicates findings from the control group's tests.
Example: See above.

TEST-DSGN Indicates notes made relating to the design of the vocabulary test.
Example: I typed the test at home. I took extra care with *nuisance* and *obnoxious*. I also had to be careful with *anxious*-- "I am _____ about the test on Friday." I thought other answers would work so I changed it to "I am so _____ about the test on Friday that I feel sick to my stomach.

TPROB Indicates particular problems students experience while taking the test.
Example: (from the test) Policemen often work with *hostile* (confused with *ornery*) people.

THELP Indicates instances where the teacher had to provide assistance to a student working on vocabulary (reading).
Example: When he got to *huddle*, I asked about it. I eventually compared it to football and he knew what it meant.

TNOTES Indicates observations noted by the classroom teacher (as opposed to the researcher).
Example: Ms. Jones spoke with me about yesterday. She said she had at least 3 students came up to her because they found words as they read. She could only remember *astonished*.

USG Indicates correct or incorrect usage of vocabulary words (in sentences)--including instances where students can use words with/without prefixes and suffixes.
Example: "The boy was sheepishly because....."

VOC Indicates student involvement with vocabulary, especially as they record their words in their vocabulary rings.
Example: "We have to look up the words and write a sentence. Then we read our books and she told us to stop and then we wrote to her in our journal" (what kids say about it).

VOC-CHS Indicates observations on student choices of vocabulary--for example, a lot of students pick words that they cannot pronounce and find that they already knew the word or they decide its a word they don't know (with or without teacher help).
Example: Shelly couldn't pronounce *enthusiastically*--I helped her then asked her what it meant. She told me an incorrect definition so I took her it meant "excited." and that it might be a good word to know.

VOC-DEF we've — Indicates problems/success in defining vocabulary words that worked on--either aloud to me or to the class.
Example: Adam said *assured* is "to make someone sure of something." He didn't have to look at his ring.

VOC-PART — Indicates student participation in vocabulary instruction.
Example: Adam wrote a word he found on scratch paper first and looked it up--*quipped.*

VOC-PRON — Indicates instances where students do or do not experience success pronouncing vocabulary words that we study.
Example: Tim came up to me and asked how to pronounce *sensational.*

VOC-PROPER — Indicates instances where students choose proper nouns for vocabulary words.
Example: The first girl I called on pointed to *Frankovich* in her book (used a proper noun for a vocabulary word).

VOC-SENT — Indicates problems/success in making sentences with vocabulary words.
(Overlapped with USG--used at same times).

VOC-WHY — Indicates discussion as to why vocabulary learning is important.
Example: I told them we would concentrate on vocabulary again and asked them why that was important. Rylee said so if we were talking to someone or if they were in college or getting a job they could understand the person and I added "or impress them with the way you talk."

WRTG — Indicates the impact of vocabulary instruction on students' writing (see subtopics).

WRJL — Indicates the impact of vocabulary instruction on students' journal writing.
Example: Judy's journal entry read "I am *reluctant* to get another book."

WRJL-RES — Indicates researcher responses in journals.
Example: While I was writing back, I asked most what book they'd choose next. In addition, I asked some if they'd ever entered a contest. I write more to those who write a lot to me.....

WRPT-- — Indicates the impact of vocabulary instruction on students' writing-portfolios.
Example: Rylee wrote "'What's wrong?' we both said in *unison*." (in writing sample)

XATTD Instances where students do NOT attend to vocabulary words.
Example: As I read with Taylor, he couldn't even read or recognize *aroma* (a vocabulary word) in his book.

XPART Indicates instances where students do not participate in vocabulary instruction--journal writing, reading, etc.
Example: She hasn't been writing words down.

XVOC Instances where students use a different word where they could have used a vocabulary word.
Example: Kory wrote, "the cat threw up on him" instead of using our new word *hurled*.

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program. The test was constructed weekly from a class (Group A) generated list of ten words.

Results from vocabulary tests indicate that the vocabulary instruction was effective in helping Group A learn vocabulary. Multiple exposures to words as well as use of vocabulary words in context influenced student performance on tests. Results from qualitative data indicate that students attend to vocabulary words in their print environment. In addition, students used vocabulary words in expressive language, including writing and speaking.

The results of this study support opportunities for wide reading, implementation of a variety of vocabulary strategies, repeated exposures to vocabulary words, and opportunities for student choice of vocabulary, as ways to enhance vocabulary learning.